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EDITORIAL

Munich and after.

The four days of debate in the House of Commons in October served to bring Mr. Chamberlain's actions and the Munich settlement into better perspective, and a majority of more than two to one was an emphatic endorsement of the policy the Prime Minister had adopted. Mr. Chamberlain himself made the policy of his Government as plain as could be desired. He explained that he had turned away from the system of power politics by which Europe had been brought to the brink of war and had attempted to set in its place a policy of reconciliation in which Britain was prepared to accept the leadership in removing those grievances which threatened a renewal of war. But British leadership was confronted by an excessive nationalism bred of the indignities and inequalities of the past and required to be supported by sufficient armed forces to ensure a hearing for the voice of reason. His policy might be summed up in two words, reconciliation and strength.

Against such a policy there emerged in Parliament and the country roughly three schools of critics. First were the advocates of preventive war, those who held that the object of British diplomacy should be to prevent the emergence of any outstanding military power on the continent of Europe, and who favoured intervention by force at such time and under such circumstances as the chances of victory would seem to justify. Theirs is the

policy which Britain has pursued almost since the days of Marlborough, which brought us into war in 1914 and to the verge of war last September. Second came the advocates of British prestige. They denounced the Munich Agreement as a dishonourable surrender to threats and held that an act of justice denied to a weak German Republic—here they were accurate enough in their facts, for the Sudeten problem had more than once been brought before and ignored by the League of Nations—should have been refused to a strong totalitarian state. The argument was advanced that Britain had always been the champion of the weak against the strong, but it was overlooked that Britain had also a tradition of being the champion of justice against injustice. To refuse a remedy for an admitted wrong to the German people merely on the ground of British prestige could have done nothing but strengthen the moral authority of National-Socialism as the one protector of the wronged. Lastly came those, and admittedly there were not many of them, who attributed Mr. Chamberlain's conciliatory policy towards Germany to a desire for an alliance with the fascist states in order to stem the rising tide of communism. In support of this contention it was pointed out that Russia had not been asked to play a part at Munich, but it was ignored that Russia could have contributed nothing to the cause of peace. She was never a party to the Sudeten dispute itself which concerned nationality, not political doctrine; and as mediator she must have been a hindrance owing to the mutual distrust between the Soviet and National-Socialist Governments.

More illuminating, however, than any of these arguments was the fact that no critic had any constructive plan to offer in place of the course pursued by the Prime Minister. Mr. Chamberlain had been faced with problems arising out of the Versailles Treaty and the resulting plans for the encirclement of Germany. When the question came to a head in September there were three possible courses open to Great Britain. She could have stood aside, shirked her moral responsibility for an unjust settlement and so abdicated all claim to leadership in Europe. She might have intervened on behalf of Czechoslovakia and used her armed forces to perpetuate what had come to be recognised as an error; and in this connection it is worth remembering that Lord Runciman, who had obtained an intimate knowledge of the whole Sudeten problem on the spot

had reported that a redrawing of the frontier was not only unavoidable, but desirable in the interests of self-determination. She could, and Mr. Chamberlain did, choose to intervene not as a combatant but as mediator, with the result that the Sudeten question was settled without recourse to war. And Mr. Chamberlain did more than this, for he brought back an agreement signed by the German Führer and himself which, if it settled no specific problem, at least recognised that the question of Anglo-German relations was of the first importance to Europe and proclaimed that consultation would be the method adopted to deal with any further questions that might concern the two countries.

While we are convinced that Mr. Chamberlain was right in what he did, at the time he did it, and that no better policy could have been devised in the heat and stress of the moment, it must be confessed that recent happenings in Germany have scarcely been conducive to a better understanding between the two countries. The reprisals taken by the German authorities for the murder of a German diplomatist by a young and irresponsible Jew, of Polish extraction, have not only disgusted the British peoples, but have also shocked millions of decent Germans. The German Press has maintained for some time a steady stream of abuse against British institutions, British policy at home and abroad, particularly in Palestine, and British statesmen. That it should pursue the colonial question or be opposed to Britain extending a helping hand to the Jews is, at the present time, perhaps understandable, but for an official newspaper, controlled by the Minister of Propaganda, to couple the name of a distinguished British statesman with that of the Jewish murderer passes the bounds of all decency. If we thought for a moment that actions such as these were supported by the majority of Germans, we could hold out no hope of better relations between the two countries. But it is clear that they are not, and the most that can be said is that excesses of this nature are wont to recoil on their author.

* * * *

The Anglo-Italian Agreement.

The accrediting of Lord Perth to King Victor Emmanuel as King of Italy and Emperor of Ethiopia carried with it official recognition by Great Britain of the sovereignty of Italy over the large territory she conquered two years ago. It marked the end of a phase of tension as uncomfort-

able as it was untraditional for the two powers concerned and the beginning, we hope, of a better. Signor Mussolini's declaration that he desires no change in the territorial *status quo* in the Mediterranean receives confirmation; the basis has been laid for a comprehensive understanding in the Middle East, especially perhaps in Arabia; and an intention to co-operate has been proclaimed in regard to Egypt. There are to be annual exchanges of naval and military information, the main purpose of the former being to ensure that no signatory of the 1936 Naval Agreement shall steal a march on another in building ships. In actual fact Italy has kept within the terms of that pact during the last two years, without being bound by it. The Anglo-Italian Agreement is a sound foundation on which to build and its conclusion has been accepted with satisfaction throughout the British Empire. In Italy an even warmer welcome was given. The Italian people have long been anxious to resume their traditional attitude of friendship with Great Britain. Commenting on the ratification of the Agreement, the Italian Press emphasised the fact that the revival of friendship between Great Britain and Italy was no more than a return to the normal and that an episode regretted by both sides had been obliterated. And it was interesting to note that the *Tribuna* went so far as to admit that the British attitude towards Italy during the Abyssinian War was not dictated "so much by motives of self-interest, as by the sensibility of imperialistic elements and the fanatical devotion to the League of Nations of the democratic and Bolshevist elements." "These two elements," the paper wrote, "adulterated the whole of moderate British opinion and forced the Government into a position of definite hostility towards Italy." Whether anyone in Britain would agree with this view is, perhaps, debatable, but there must be few who wish to continue an unnatural and unwarranted enmity with an old friend.

With the likelihood of genuine Anglo-Italian accord before us, we can but hope that Franco-Italian relations which are nothing short of deplorable at the moment will also soon be placed on a more stable and permanent basis.

* * * *

The Woodhead Report.

The Royal Commission presided over by the late Lord Peel published a report eighteen months ago recommending the partition of Palestine into an Arab State, a Jewish State and Mandatory Territory. His Majesty's

Government expressed general agreement with the proposals and shortly afterwards received permission from the Permanent Mandates Commission of the League of Nations to explore the practical application of the scheme of partition, with the result that the Woodhead Commission was appointed to recommend boundaries for the proposed states and examine the economic problems involved.

In their report the Woodhead Commission examine three plans, which they label "A," "B" and "C." Plan "A" was that recommended by the Peel Commission and is rejected on the grounds that a Jewish State with an equal number of Jews and Arabs and four-fifths of the land in Arab ownership is plainly inconsistent with the principle that the fewest possible Arabs and Arab enterprises should be included in the Jewish State, and vice versa. Plan "B" is identical with Plan A except that Galilee and a predominantly Arab area at the southern extremity of the proposed Jewish State are excluded. The Commission reject this scheme too on the grounds that Galilee can not be placed under Arab control without endangering the security of the Jewish State, its retention under mandatory control would deny the Arabs their independence, and Haifa—the one deep water harbour in the country—could not be included in either state without serious detriment to the other.

The majority of the Commission put forward Plan "C" as the best they have been able to devise. That plan divides Palestine into a northern and a southern part, both to be retained under temporary mandate, and a central part consisting of an Arab State, a Jewish State and the Jerusalem Enclave. The idea underlying the temporary mandates is that they should remain in being until both races agree to their surrender to one or other of the independent states, thus giving a binding assurance to the Arabs that they will not be placed under the political domination of the Jews against their will. The Jerusalem Enclave is intended to be permanently mandated. But the real difficulties in the way of any scheme of partition lie in the budgetary prospects of the small states created. Those prospects under Plan "C" are examined exhaustively by the Commission, who anticipate a comfortable surplus for the Jewish State but substantial deficits for the Arab State and the mandated territory. Moreover there is no chance

of the Arab State being in a better financial position under any other scheme of partition; the Jewish contributions to tax revenue alone have enabled Palestine to balance its budgets up to date. The Commission discard the recommendation of the Peel Commission that the United Kingdom should make a capital payment to the new Arab State on the ground that financial control would have to be exercised if such a grant were made, and the Arab kingdom could not then be called self-supporting or independent.

The Commission conclude that on a strict interpretation of their terms of reference they have no alternative but to report that they are unable to recommend boundaries for the proposed areas which will afford a reasonable prospect of the eventual establishment of self-supporting states. They go outside their terms of reference however, and wisely so, when they suggest a modified form of partition which they term economic federalism. Under this both States would be required to enter a customs union with the mandated territories under which fiscal policy would be determined by the Mandatory Power, which would collect the customs revenue and distribute the net surplus according to an agreed formula. Even so the Arab State would have to receive a portion of the revenue which should, on purely financial grounds, go to the mandated territory. While the arrangement proposed withholds fiscal autonomy from both Arab and Jewish States the Commission recommend it as a satisfactory basis for settlement, provided His Majesty's Government is prepared to accept the large financial liabilities involved.

But the recommendations of the Commission are not unanimous and the real sting in the report lies in the reservations made by two out of its four members. Sir Alison Russell considers that Plan B is preferable to Plan C, because a Jewish State of the small area proposed in the latter is not in accordance with British obligations to Jewry. Mr. Reid considers that Plan C is the best that could be devised under the terms of reference, but deems it impracticable on account of absence of consent, absence of equity, absence of security, dismemberment of Palestine and absence of solvency.

Soon after the publication of the report His Majesty's Government announced that they accepted the view that the creation of

separate Arab and Jewish States was impracticable on administrative and financial grounds and would continue their government of the whole country for the present. They intended, as soon as possible, to invite representatives of the Palestinian Arabs, the Jewish Agency and Arabs of neighbouring states to a conference in London regarding future policy in Palestine and immigration into the country.

In Palestine the Woodhead Report was received without any sign of pleasure, though there were no violent reactions. Terrorism and sabotage reached a high water mark towards the end of October and have since shown a marked drop, but there is no reason to suppose that the revolt is over. The Arabs are suspicious about the continued lack of any statement regarding future immigration of Jews, and some at least are annoyed that the Mufti should be excluded from the coming conference. Meanwhile there is an ever increasing number of Jews clamouring to be allowed to enter the country. Altogether the prospects for the conference are not very auspicious despite the fact that Egypt, Iraq, Saudi Arabia, Trans-Jordan and the Jewish Agency have accepted the invitation to send representatives.

* * * *

The War in China.

October saw a considerable quickening in the course of events in China and by the end of the month one of those turning points had been reached which so often face a combatant who has obtained success everywhere but is still, apparently, not within measurable distance of final success anywhere.

In northern China, Japanese forces crossed the Yellow River and cut the Lunghai Railway to the west of Chengchow. In eastern Shansi Japanese troops took Wutaishan, a place which had served as headquarters for the famous 8th Route Army since the early days of the war and a centre from which guerilla activities had for some time been directed. But apart from these minor successes Japanese control in the north appears to be no greater and the guerilla menace no less than they have been for months.

In central China the Japanese were steadily reinforced throughout September and early in October had nine divisions above Wuhu on the Yangtze. Steadily the various columns

advancing on Hangkow closed in, successive Chinese lines of defence being turned by landing operations on both banks of the river, and on 25th October the first troops entered the capital. In isolated cases the Chinese put up a stout resistance but, taken by and large, they lacked the ability to take advantage of the facilities for defence offered by the nature of the country. The siting of positions was faulty, the artificial strengthening of defences rudimentary and the idea of fighting a planned defensive battle simply non-existent. Hangkow itself the Chinese authorities had decided not to defend and a vast exodus of the population, including General Chiang-Kai-shek and his wife who left for Yuanling, took place. Bridges, military equipment and buildings, public utility concerns and much Japanese property were destroyed before the invaders entered the capital.

Meanwhile in southern China there had been indications for some weeks that the Japanese were preparing a fresh operation, for a force of two divisions and a brigade had been assembled in convoys off Formosa early in the month. On the 12th the first troops of this force began landing on the northern shores of Bias Bay, the one time notorious home of pirates. Three separate landings were made and only at one point was any resistance encountered. The subsequent advance inland, the cutting of the Canton Kowloon railway and the capture of Canton itself followed so rapidly as to give grounds for a suspicion that on the Chinese side hopeless inefficiency had been combined with treachery. General Yuhan-mou, the Commander-in-Chief of the Canton armies, certainly withdrew with precipitate haste before what was, after all, only a small force, and then surrendered with some of his officers. It is not easy to reconcile his actions with the constant avowal of the Canton authorities to defend the city.

Whether these considerable successes will bring the China "incident" to an end remains to be seen. The loss of Canton has cut China's last major link with the outside world, but it has been estimated on fairly reliable authority that she has enough ammunition and equipment to continue resistance for some months, and it is possible that further small amounts may reach her from the Soviet or by the Burma Yunnan frontier. In fact, General Itagaki, the Japanese War Minister, reviewing events after the fall of Hangkow, stated openly that the Japanese Government had no

intention of relaxing its efforts to eradicate General Chiang Kai-shek and all influences embracing communism. If necessary Japanese troops would march into the remotest parts of China. This may well be necessary, for General Chiang Kai-shek's prestige still seems to be as high as ever, even if his material resources are dwindling.

Above Hangkow river gorges would complicate the problem of maintenance and rule out much of that close co-operation between the army and navy which has been a feature of the Yangtze advance. Elsewhere a westward move would also be handicapped by lack of communications. For the winter, then, it appears that a halt may be called and an attempt made to consolidate the enormous area at present under the nominal control of the Japanese armies.

* * * *

Kemal Ataturk.

The death of Kemal Ataturk removed one of the illustrious figures of the post-war world. Since May 1919 when Mustafa Kemal was appointed Inspector-General of the forces in Eastern Anatolia, the history of Turkey has been the history of his life. Within a few weeks of his appointment Mustafa had become the embodiment of Turkish resistance to the Greeks. Following on the Treaty of Lausanne he was proclaimed Ghazi and a year later President of the newly formed Turkish Republic. The following March the Popular Party of which Kemal was leader passed a law abolishing the Caliphate and banishing all members of the House of Osman. The Caliphate abolished, the President turned his attention to the secularizing of the country, and such measures as the emancipation of women and the compulsory adoption of surnames, the lack of which had for long caused confusion, followed. From internal reform he turned his hand to foreign policy and negotiated understandings with Russia, Britain, Greece and his Balkan neighbours. Here, too his policy was crowned with success, when in 1936 the Turkish Republic regained full sovereignty over the Dardanelles and the Bosphorus. Of the leaders who emerged in post-war Europe none was faced with greater difficulties and none accomplished more. In Kemal Ataturk Britain has lost a friend and Turkey a patriot and leader.

General Ismet Inonu, a former prime minister and close collaborator of Kemal Ataturk, was elected President of the Republic in November.

* * * *

The Royal Air Force.

Referring two months ago to air defence requirements, Sir Kingsley-Wood told the House of Commons that the Air Estimate for 1939-40 would amount to about £200, 000,000, compared with £120,000,000 for the current year, and that the first line strength would be increased by thirty per cent. over the programme already authorised.

The fighter aircraft now on order, or to be ordered in the near future, numbered between five and six thousand. The aircraft industry was working to full capacity on orders for a considerable period ahead. Output was already fifty per cent. greater than it was last May and by May of this year the increase would be one hundred and fifty per cent. Orders had been placed in the United States for four hundred training and reconnaissance machines and negotiations with Canadian manufacturers were in progress. Balloon defences would be in operation this summer in a number of provincial centres and requirements in London were already practically complete.

The Government aimed at producing a sound and well balanced Air Force on a high standard of preparedness and with adequate reserves. Satisfactory as recruiting had been, there was still need for a progressive increase in personnel to meet the new requirements.

* * * *

The Evacuation of London.

The problem of evacuating the civil population from industrial areas in the event of air attack is extremely intricate and it was hardly to be expected that a small committee of members of the House of Commons would, or indeed could, investigate that mass of detail which is properly the sphere of Government departments. Nevertheless the report of the Anderson Committee did cause some disappointment, since it was confined almost entirely to principles.

The Report infers that the advisability of evacuation from London and other centres is still an open question and points out that no adequate inquiry has yet been made into the administrative problems and financial demands which would be created by large

scale movements of the population. In any case it decides quite definitely against mass evacuation, on the grounds that no movement of the civil population will be a substitute for adequate efforts in active and passive air defence. The Committee considered that accommodation around London would suffice to take three millions of refugees without overcrowding and recommended that the acceptance of refugees be made compulsory. But that is as far as they went in demanding sacrifices of individual liberty. While they envisaged the possibilities, even the likelihood, of large scale evacuation, they did not consider that evacuation should be compulsory except in those areas in which the removal of the civil population would be of direct military advantage. The most pertinent remark made in the Report was that Greater London must be treated as a single unit for the purpose of Air Raids Precautions. The backwardness of the preparations last September could, apparently, be traced to a large extent to the division of tasks between nearly thirty boroughs, with the result that the police force, which in provincial centres is the basis of organization for Air Raids Precautions purposes, played a small part in the civilian defence of London.

This is certainly a matter which should be put right, for as long as there is doubt about government policy local authorities cannot be blamed. They must know who is to be evacuated, who is to remain and who is to pay for transport. The security of the population of London is of vital interest throughout the Empire.

THE ITALO-ABYSSINIAN CAMPAIGN, 1935-36

[*A lecture given before His Excellency Sir Henry Craik, Bart.,* K.C.S.I., *Governor of the Punjab, and the members of the United Service Institution of India, on 14th July, by Lieut.-Colonel A.C. Arnold,* O.B.E., M.C., *The Royal Fusiliers.*

The lecturer was introduced by Sir Aubrey Metcalfe, K.C.I.E., C.S.I., M.V.O., *Secretary, External Affairs Department.*]

YOUR EXCELLENCY, LADIES AND GENTLEMEN,

Before beginning this lecture I should like to emphasize that I give it purely and simply from the point of view of a soldier endeavouring to present a straightforward and unbiased account of the war, and at the end to draw certain deductions and lessons. I shall therefore refrain from giving any opinion as to the moral or political rights and wrongs of the Italo-Ethiopian quarrel.

Before dealing with the war itself it is desirable to understand its causes and to do this one must delve into back history since the causes of the war were as much historical and psychological as economic.

Italy is a young nation which arrived late in the scramble for colonies in Africa. When she did arrive she entered the already somewhat restricted field with zest and after a certain measure of success her efforts ended disastrously on the field of Adua in February 1896. The defeat of Adua left a deep scar. Not only did it cause the end of Italian colonial ambitions for a decade and a half, but it left behind a sense of bitter shame that a European country had suffered a crushing defeat at the hands of a semi-civilized African race and had not had the will-power, perseverance or moral courage to return to the charge and bring the war to a successful conclusion.

By 1911, however, Italian imperialism had so far recovered its morale that it was decided to risk further colonial adventures, the result being the Libyan campaign of 1911. And questions of colonial expansion subsequently figured prominently in the bargain known as the Treaty of London, by which Italy entered the war on the side of the Allies in 1915. At the Peace Treaties following the conclusion of the Great War, Italian colonial aspirations were left unsatisfied, and from the Italian point of view the French and British were guilty of going back on their bargain.

This left a feeling of intense dissatisfaction and bitterness and from it grew a determination on the part of the Italians to achieve colonial expansion by their own action, should opportunity offer.

In 1923 Signor Mussolini came into power and at once began the systematic regeneration of the Italian people. As you know, he worked wonders internally and the Italian quickly lost the inferiority complex under which he had laboured for some decades and regained his self-assurance. Externally, however, all the other big powers were loth to regard the Italians with the respect due to a Great Power. This rankled, and as Italy continued to grow in strength so did the desire grow to show the world that Italy was, in fact, now a first-class power. In 1931, the financial crisis brought home to the Italians with a shock how utterly dependent they were on other nations for almost all their raw materials and, as a corollary, their eyes turned again to the need for good colonies as being the natural solution to their difficulties.

By 1932, therefore, Italy's foreign policy had become definitely aggressive, compound of a desire to show the world that she had to be reckoned with as a first-class power and of eagerness to expand colonially with a view to gaining a measure of self-sufficiency in raw materials. It was in 1932 that Signor Mussolini's thoughts first seem to have begun to turn seriously towards Ethiopia. Here was a country reported to be fabulously rich in raw materials of all kinds, a country with which Italy had a long account to settle, and a country which by its slack administration constantly gave its neighbours, of whom the Italians were one, serious cause for complaint. It was, moreover, a country which separated geographically two existing Italian colonies and the intransigent attitude of its rulers made collaboration between these colonies difficult.

In 1932 and 1933 much preliminary planning was done and by 1933 Signor Mussolini seems to have made up his mind definitely that Italy's colonial needs must be satisfied at Ethiopian expense, and at a date not later than 1936. It was at first hoped that an opportunity to intervene in Ethiopian affairs would occur either as the result of some revolt amongst the Rases or through some aggressive frontier action on the part of the Ethiopians which would place the Italians in the position of victims and permit a legitimate counter-offensive. During 1934, therefore, definite plans for such a defensive counter-offensive were elaborated by the Chiefs of Staff of the Fighting Services, and certain administrative preparations in the shape of increased rail and road programmes were set in hand. The exact reason why Signor Mussolini

selected 1936 as the latest date for a reckoning with Ethiopia has never been explained, but I suggest that three reasons were contributory. Firstly, the revival of Germany and her colonial ambitions warned Signor Mussolini that he might soon not be the only competitor in the field. Secondly, the rapid development, material, moral and physical, of the Italian nation, was due to reach its zenith about 1936, and this was obviously the moment for action, before enthusiasm waned. Thirdly, increasing economic difficulties on the home front may have indicated that an external diversion would soon be desirable.

By the end of 1934, from purely military indications in the two Italian colonies, the War Office in London became convinced that the Italians were planning operations against Ethiopia. Other departments of state, however, found it difficult to believe that the Italians meant to push matters to a crisis since Ethiopia and Great Britain, France and Italy were bound together by a number of treaties, pacts and arbitration agreements. It was only in late April 1935 that Italy really put her cards on the table, by which time she was so deeply committed that she could not draw back, even she wished to do so.

To return to the actual narrative, on 5th December 1934 a serious affray took place at Wal Wal between Italian irregulars and the Ethiopian escort to the British-Ethiopian Boundary Commission. This gave the Italians an excellent opportunity. No one will probably ever know who really fired the first shot at Wal Wal, but it is certain that the local Italian commander was fully ready for a fight whereas the Ethiopians were not. Italian tanks and aeroplanes were in action within a few minutes of the battle opening, although theoretically there were none within close call, while the Ethiopians still had canvas covers on their machine-guns. Again, it is not clear to what extent the affair was the responsibility of Captain Cimmaruta, the Italian commander on the spot, or of higher authority, but there is some reason to believe the former. Personally, I believe that Captain Cimmaruta was actually responsible for the fight, but that he was working on a generally aggressive directive from above. When the news reached Rome, Signor Mussolini was faced with the alternative of having to disown Captain Cimmaruta's action or else supporting him. He unhesitatingly selected the latter course and made demands for reparations which were sufficiently severe to ensure a long period of negotiation. During this period he matured his plans. His instructions to General de Bono, who was sent out as Governor-General on January 7th, 1935, are interesting and read as follows:

"You leave with an olive branch in your pocket. We will see how the Wal Wal affair develops. If it suits us to accept conditions arrived at by arbitration it will be your task to announce your appointment to the Emperor, telling him that you have been sent out to square up misunderstandings and to collaborate in restoring good relations between our two states. At the same time you must continue your preparations. If no solution of the incident is reached, or one which is not satisfactory to us, we will pursue events exclusively according to our own point of view."

General de Bono on arrival at Eritrea at once ordered the mobilization of the Colonial Army and set in train intensive administrative preparations for the reception of an expeditionary force and for improving existing communications. Signor Mussolini meanwhile had succeeded in obtaining from M. Laval what he apparently understood to be the promise of a free hand to do what he liked in Abyssinia in exchange for certain agreements in Europe.

Early in February 1935 Signor Mussolini was led to believe that the Emperor was considering offensive action against Somalia and decided to dispatch two metropolitan divisions to East Africa to counter this threat. By the end of February, however, he realised that the Emperor was unlikely to take the initiative so he wrote to General de Bono the following directive:

"In case the Negus does not intend to attack, we ourselves must take the initiative. That cannot be done unless you have at your disposal, in addition to native troops, at least 100,000 white troops, a number which must rapidly rise to 200,000."

He followed this up on March 8th with:

"It is my profound conviction that—we having to take the initiative in the operations at the end of October or end of September—you must have a total force of 300,000 men . . . without this force to keep up the pressure of offensive penetration, the operations will not have the energetic rhythm we desire . . . Also, in view of possible international complications it is well to hasten. For want of a few thousand men we lost Adua! I will never commit that error. I will err on the side of too many rather than too few . . . it is essential not to postpone the date of October that we have settled on for the commencement of operations."

Thus we see that by the middle of March 1935 the project had changed from a defensive counter-offensive to a deliberately planned offensive which was to take place as soon as the rains ceased. From this moment Signor Mussolini had no intention of accepting a settlement, and every diplomatic move made was with the sole idea of gaining time for preparations and of keeping the Ethiopians quiet until the Italians were ready to strike. If further proof of this were needed, it is only necessary to quote two more of Signor Mussolini's letters. In one dated May 18th he wrote: "There is talk of a compromise. . . I have let it be understood that we will under no circumstances turn back." And again, on 26th June, when informing General de Bono of Mr. Eden's visit and proposals, he wrote: "You can imagine my reply . . . the English attitude is helping rather than harming us."

By the end of September 1935 it was considered that in view of the European situation it was essential that a start should be made even if preparations were not entirely complete and on September 29th the advance was ordered for October 3rd without a declaration of war.

Meanwhile the Ethiopians who had no intention whatever of risking a single-handed quarrel with Italy had been carrying on negotiations and offering various concessions through the League of Nations and it was not until July 26th that, realising the danger, the Emperor ordered general mobilization.

So much for the history of the period immediately preceding the outbreak of war and its causes. Now let us turn to the operations themselves.

The Italian plan was for General Graziani in Somalia to contain the largest possible number of Ethiopian troops while General de Bono in the north advanced rapidly and occupied that portion of Tigre which the Italians had held prior to 1896. From a purely military point of view, a quick advance in the south had certain advantages and might have forced a decisive battle sooner than the northern advance, but from the point of view of national morale the recapture of Adua was all-important.

The Ethiopian plan was dictated by the fact that they were caught before their concentration was complete, and consisted in a withdrawal from outlying provinces in the hope that an opportunity would arise later to develop a counter-offensive against the Italian lines of communication as they became attenuated, or that League action would gradually take effect.

The war itself falls into four distinct phases. The first phase is from the beginning of the campaign until the middle of

November 1935 during which period the Italians held the initiative. The initial advance on the northern front effected the occupation of Tigre up to the line Adigrat—Adua—Axum, while a second advance a month later reached Macalle and the line of the Tacazze river. General de Bono from an administrative point of view was not ready for this second bound but was ordered to undertake it by Signor Mussolini in the following directive: "There will not be complications in Europe before the English elections fixed for the middle of November. By that date all Tigre up to Macalle and beyond must be ours."

Actually both advances were made with very little opposition from the enemy though in the face of considerable natural difficulties, and the fact that the second bound was made prematurely led to serious difficulties later on.

On the southern front General Graziani made small advances in several places, the most important of which ended in the capture of Gorahai; but after the check at Ananle on November 11th he relapsed into inaction for two months. Though this was to a certain degree in accordance with his defensive rôle it was principally due to the fact that at Ananle the Italians lost three light tanks which had a bad effect on the morale of the Somali native troops who had hitherto regarded tanks as invulnerable. The disaffection was so great that some units actually had to be transferred to Libya.

The second phase lasted from the middle of November to the middle of January. During this phase, for a variety of causes, the initiative passed to the Ethiopians and the Italians found themselves everywhere on the defensive. On the northern front General de Bono's rapid advance to Macalle and the Tacazze had far outstripped the speed with which his communications could be built up and he found himself having to supply large masses of men over a most difficult terrain entirely unprovided with roads and with insufficient transport. Added to this the Tacazze River which had hitherto only been passable at certain known crossings fell and ceased to be a military obstacle. At the same time the Ethiopians had completed their much delayed mobilization and concentration and their forces were beginning to infiltrate into the T'embien and Shire. The first Ethiopian success occurred on 15th December when Dedjazmatch Ayelu suddenly forded the river near Mai Timchet and surprised the Italian garrison at the Dembeguina pass, driving it back on to Selaclaca with considerable loss including almost an entire company of tanks. Ayelu followed up his success and on December 24th occupied Selaclaca which was evacuated

by the Italians. He then planned a drive into Eritrea. Had this come off, we know now that the Italian 2nd Corps had orders to withdraw its right flank into Eritrea, evacuating Axum if necessary. However, the drive never came off. Mustard gas was dropped on Ayelu's troops by the Italians on December 24th with the idea of preventing their further advance, and it certainly had a delaying effect; but this excellent scheme was finally vetoed by Ras Imru who had been sent by the Emperor to take supreme command of the forces in Shire. It is rather a tragedy that Ayelu who was the most brilliant commander the Ethiopians produced in the whole war was never trusted by the Emperor and Imru, a man of inferior military calibre, was placed over his head in order to watch him. Thereafter, the customary jealousy between Ethiopian commanders prevented any useful co-operation between these two.

Fighting also took place in the Tembien between the 18th and 22nd December, when Ras Kassa advanced on Abbi Addi, and the Italians, though tactically successful in repelling his assaults, subsequently withdrew to the Warieu Pass.

Between January 20th and 25th, serious fighting again occurred in the Abbi Addi area as a result of an attempt by the Italian native corps to clear the area and to dispose of the threat which Ras Kassa's presence there constituted to the Italian lines of communication. A great deal of heavy but confused fighting resulted, in the course of which a column of Italian Blackshirts was very severely handled. When the fighting eventually died down both sides occupied roughly the positions that they had held before it began. Both sides subsequently claimed a victory; the Italians on the grounds that Ras Kassa's projected offensive against their lines of communication was nipped in the bud, and the Ethiopians on the grounds that the Italians had failed to dislodge them from the Tembien.

Actually, in the course of both the Dembeguina and the Abbi Addi fighting, considerable bodies of Italians were cut off and surrounded by the Ethiopians, and in both cases only escaped annihilation because the latter either dispersed to loot, or for some other reason failed to push home their advantage. Had the Italians experienced even a minor disaster at this period the whole course of the war might well have been different. As it was, the Italian High Command obtained a very good insight into the fighting capabilities of the Ethiopians and realised that, though personally brave, they were quite incapable of carrying out concerted movements.

By the end of January, therefore, the position of the Italians on the northern front was by no means happy. The Ethiopians were well established in the Tembien which prevented the Italians from using the Axum—Macalle road and constituted a permanent threat to the main Italian line of communication Adigrat—Macalle.

During this period, Signor Mussolini, considering that the military situation called for the best military commander that Italy could produce, had replaced General de Bono in November by Marshal Badoglio. On arrival the latter at once set about a thorough reorganization of the whole of the administrative arrangements—a task which taxed his energies and resources to the utmost.

Meanwhile, on the Southern front, the Ethiopian main forces had concentrated in the Jijiga area under Ras Nacibou while a second substantial force under Ras Dasta moved down from Sidamo towards Graziani's left flank about Dolo. In order to relieve the pressure on the northern and home fronts and to dispose of his threat to his own left flank Graziani, who had remained inactive since Ananle, attacked Dasta on January 13th with mechanized forces, defeated him heavily at Nighelle, and drove the remnants of his army back to Wadera. This easy victory was partly due to the fact that the morale of Dasta's army had been sapped by gross maladministration and partly to the fact that his forces tried to stand up to tanks in ideal tank country with disastrous results. Graziani's success not only had an excellent moral effect in Rome and on the northern army but also caused considerable alarm in the Ethiopian capital since it opened up a possible line of advance on Addis Ababa, *via* Allata and the Lakes. This resulted in the diversion of a number of Ethiopian troops intended for the northern front into Sidamo.

During this period the Ethiopian northern armies had completed their concentration and at the beginning of February Ras Mouloughetа's army was astride the "Imperial road," Ras Kassa and Ras Seyum were in the Tembien and Ras Imru and Dedjazmatch Ayelu were still in Shire.

The third phase opened early in February when Marshal Badoglio had so far put his administrative house in order that he felt in a position to regain the initiative. The Italian Government was being subjected to heavy pressure from the League, the effect of sanctions was beginning to tell, the Italians held comparatively little enemy country with which to bargain, and the rains were already within sight when the season for offensive campaigning

must cease. He had therefore several powerful incentives to vigorous action, and the Ethiopian concentration gave him his opportunity.

Marshal Badoglio decided to strike first at Ras Mouloughetа's army which was occupying a strong position on and forward of the Amba Aradam massif. He therefore concentrated, in and forward of Macalle, two corps, the First and Third, a total of seven divisions and a mass of eighty-one pieces of medium artillery. This I think you will agree was a fine administrative achievement as these large forces had to be concentrated and maintained on the single road Adigrat—Macalle while, in addition, reserves of supplies and ammunition had to be built up.

On the 11th February Marshal Badoglio launched his attack under cover of a heavy artillery bombardment, and by the evening of the 12th the Italians had captured the Ethiopian position which protected the approaches to the Amba Aradam massif itself. They then paused for two days while the heavy artillery moved forward and attacked again on the 15th, the Amba being finally captured in the evening by the Alpini who stormed the crest from the rear.

On the 13th an Ethiopian force led by Bitwoded Maconnen had carried out a counter-attack round the Italian left flank and had actually succeeded in entering Macalle, but on Maconnen becoming a casualty his force had dispersed. Had the Ethiopians been able to maintain themselves in Macalle for even quite a short time the position of the Italians would have been precarious.

Meanwhile on the Italian right flank Ras Kassa and Seyum within sound and almost within sight of the battle made no move, though they could have intervened with large forces by the second day, and in fact had instructions from the Emperor to do so.

On the 16th the remnants of Ras Mouloughetа's army retired in disorder towards Dessye and were subjected to continuous and concerted air attack including a proportion of mustard gas. The last straw was when the Raia and Azebu Gallas, who had been in touch with the Italians for some months, rose and attacked the fugitives. From this moment the retreat became a complete rout and all hope of rallying the fugitives was lost. Ras Mouloughetа himself was killed by the Gallas.

Having defeated Ras Mouloughetа, Marshal Badoglio next turned his attention to Ras Kassa and Seyum. He diverted the 3rd Corps from the pursuit of Ras Mouloughetа westwards along the south bank of the River Gheva, afterwards turning them north and throwing them across the river. This was a fine administra-

tive performance as it entailed feeding the whole corps for three days partly by air and partly by rations carried on man-pack. At the same time the Eritrean Corps was set in motion from the north-east so that the two Rases would be caught between the two corps. Actually after one day of somewhat confused fighting the Ethiopians managed to escape by night past the right flank of the 3rd Corps, and it is possible that the Italians meant them to do so. Their retreating columns were discovered by the Italian air forces the next morning and were subjected to heavy air attack with both bombs and gas which very soon turned their retreat into a rout. Both forces subsequently broke up into small bodies and dispersed towards their home districts.

Marshal Badoglio's third blow was directed at Ras Imru and Dejazmatch Ayelu in Shire. His plan of attack here was to advance the 2nd Corps westwards in the direction of Selaclaca—Coitza while the newly formed 4th Corps made a wide detour and came down through the waterless country in northern Shire onto the Ethiopian left flank. The attack opened on the 26th February but the 2nd Corps met strong opposition and made little progress during the first three days. On the fourth day, however, the advance of the 4th Corps, which had been entirely supplied and watered by air since it left Eritrea, made itself felt and the Ethiopian armies retreated towards the crossing of the Tecazze at Mai Timchet. Again, the Italian air force intervened and subjected the fugitives to air and gas attack especially at the crossing. After crossing the river Ayelu's men who were close to their home district immediately dispersed, whilst Imru's men broke up into small bodies and continued their headlong flight southwards, harried by certain sections of the local population.

Thus in the short space of three weeks Marshal Badoglio had destroyed the three major Ethiopian armies on the northern front, had regained the initiative and had opened up the way to Addis Ababa.

He now paused to appreciate the situation. His intelligence service, which was very good, informed him accurately of the complete state of disruption of the three defeated northern armies. He also knew that there was a serious rebellion in Gojjam for the suppression of which considerable forces had been diverted, and that the only remaining enemy force between him and Addis Ababa was the reserve army, including the Imperial Guard, which was under the personal command of the Emperor in the Quoram-Dessye area. The Marshal therefore decided that if he could defeat this army there was a chance of being able to reach Addis Ababa

and base himself on the railway before active operations were stopped by the rains, an event which would normally occur in about ten weeks' time. He realised that if he could not reach Addis Ababa and use the railway, the line which he must hold during the rainy season would be limited by the location of his weatherproof roadheads and could not on reasonable estimates be far south of the Tacazze. He therefore took the bold decision of attempting the occupation of Addis Ababa before the rains rendered further movement impossible, and with this end in view ordered a general advance on all fronts. We now know how bold a decision this was, seeing that with unlimited labour and under peace conditions the road only reached Addis Ababa in June 1937. The 1st and Eritrean Corps were directed down the Imperial Road with the task of gaining contact with the Ethiopian reserve army and bringing it to battle. The 3rd Corps was directed on Socota where it could to a certain degree protect the flank of the 1st Corps, while three new lines of advance were initiated—one from Assab to Sardo in the heart of the Danakil country; one through the Semien viâ Debat towards Gondar, and one parallel to the Sudan border with Gondar as its objective. The advance on Sardo was carried out by quite a small body of native troops over a waterless volcanic desert, all supply, evacuation of casualties, etc., being carried out by aircraft which landed near the column daily. Sardo was occupied on March 11th. The advance through the Semien was carried out by the 2nd Corps and 3rd Eritrean Brigade, its object being to protect the flank of the Gondar column and prevent Ras Imru's and Dejazmatch Ayelu's forces from re-uniting. The advance on Gondar was made by an improvised mechanized column of five hundred vehicles under Starace, the Secretary-General of the Fascist Party and a lieutenant-general in the Militia. It was a remarkable performance. The column advanced through trackless country often covered with grass ten feet high and relied on aircraft for information and local protection. Had the Ethiopians set alight the grass which was tinder dry it is more than possible that the whole column would have been annihilated. However, they did not and Gondar was occupied on 1st April.

At the same time, Marshal Badoglio ordered his Quarter-master-General to collect a large column of motor transport and to hold it in readiness to march on Addis Ababa as soon as he should give the word.

The 1st and Eritrean Corps continued their advance southwards with little opposition until they reached the area of the

Mecan Pass. Here on March 27th the Marshal intercepted a wireless message from the Emperor to the Empress and learnt that the Emperor was assembling the reserve army for attack. The two Italian Corps therefore took up a strong defensive position about Mai Cio.

On the morning of April 1st the Ethiopians, led by the Imperial Guard, attacked with great violence and attacks continued throughout the day. Though at times the situation was anxious the Italians were well entrenched and stood firm, and the Ethiopian losses were enormous. In the evening the Italians counter-attacked and occupied part of the Ethiopian position, and during the night the Ethiopian army commenced its retreat. The next morning, harassed by the Italian Air Force, the retreat became a rout, and to make matters worse several local tribes attacked the fugitives.

With this defeat all hope of organized resistance in the north vanished, and after spending a miserable month as a fugitive the Emperor left the country.

The reasons which decided the Emperor to risk all at Mai Cio are still not known. He seems to have suddenly reverted to the primitive attack methods of his ancestors probably due to a state of mind engendered by extreme exhaustion, physical and mental, pressure from his remaining chiefs and disappointment at receiving a negative answer to a last desperate personal appeal to Great Britain for help.

Marshal Badoglio, directly he had news of the victory at Mai Cio, moved his headquarters by air to Dessye and ordered forward the mechanical transport column which had been collected for the march on Addis Ababa.

The actual advance on Addis Ababa was a very fine example of endurance and administrative improvisation. It was carried out in two columns. A mechanized column of seventeen hundred and twenty vehicles manned by the 1st Corps moved along the so-called main road through Debra Brehan, while a lightly equipped Eritrean brigade moved on foot over the hills by the direct track through Emberta. The former column was followed by the bulk of the Eritrean Corps on foot. The advance began on 23rd April. No enemy resistance was encountered but the mechanized column found that the so-called road was little better than a track without foundations, rendered almost impassable by the rains and by Ethiopian demolitions. In many places every

vehicle had to be man-handled and in others entirely new diversions had to be cut out of the solid hillside. The Eritrean dismounted brigade arrived within sight of Addis Ababa first and it was not until May 4th that the motorized column made contact with them. On the afternoon of May 5th the two columns entered Addis Ababa together, the city having been a prey to looting and murder for the previous four days

To turn back to the southern front. Early in March Ras Nacibou thought, or was told, that it was his duty to produce a diversion. He therefore called for his Turkish advisers, Wehib Pasha and Farouk Bey, and demanded an appreciation.

The latter advised against an offensive and recommended on the contrary that he should withdraw to the Harrar foothills and there dig in and carry out intensive training; leaving small forces on the low ground to harass the Italians whose line of communication, already long enough, would in the event of their trying to advance be still further drawn out. Nacibou as usual ignored their advice and decided to stage an offensive in the direction of Denan. If successful, his troops were then to turn eastwards and take Gorahai from the rear. As usual, much time was wasted in fruitless discussion and it was not until April 13th that Nacibou attacked. Not only were his forces inadequate but General Graziani, who had intercepted all his opponent's orders, had massed the Libyan division on his left flank to counter the threat. The Ethiopian attack met with a small local success near Dagamodo and was then checked by General Graziani who, on the 15th, passed to the counter-offensive in three columns. The left column consisted of the Libyan Division and a mechanized force for exploitation. The centre column consisted of a native brigade and irregulars under General Frusci and the right column of Forest Militia and Irregulars under General Agostini.

Fierce fighting took place on the front of the Libyan Division during the 16th and 17th and on the 18th the Ethiopians started to withdraw along the whole front. The Italians followed but the weather had by this time broken, thereby limiting air action, and in spite of several days' fierce fighting, especially on April 24th and 25th, the Ethiopians managed to make good their retreat with their forces still maintaining some sort of cohesion.

Daghabur was occupied on April 30th, Harrar on May 8th and contact with Marshal Badoglio's troops was made by means of the railway on May 9th.

So ended organized resistance.

Since then the Italians have been gradually but steadily occupying and pacifying the country. Their methods have been drastic, by our standards even ferocious. Broadly speaking, their policy seems to be to eliminate the Amhara and a proportion of the Shoans altogether, both by direct action and by encouraging the one-time subject races to persecute their old oppressors. They have had many minor reverses in the course of pacification and have in every case exacted a savage vengeance. They have undertaken an ambitious road programme which is going on reasonably well and the importation of Italian military colonists has begun. The real trouble is that the whole framework of the development scheme is too big. It was drawn up in the first flush of victory when Signor Mussolini's favours were all for the new colony. Since then Spain has come into the limelight and the East African colony has found itself with a huge framework and slender resources. Perhaps a little disillusionment is also discernible in that the country is not the El Dorado which the Italian people were led to suppose, but one requiring years of patient toil and development before it will pay dividends.

Nevertheless the Italians are there to stay and it is futile for "Diehards" to try and keep alive the myth of Ethiopian independence. The old Empire broke up on the field of Mai Cio and the Emperor could not return to Ethiopia to-day even if the Italians were not in occupation. Everything is topsy-turvy, the Amhara and the Shoans are scattered and the Galla and other one-time subject races are up.

The constant opposition which the Italians are meeting is no longer the opposition of a desperate nation but of a number of independent tribes, races and districts who resent the white man's disciplined rule and methods. Whether the world recognises Italian sovereignty in Ethiopia or not, affects them not one whit. They are not in touch with the outside world and they will go on giving trouble until they are tamed. Italy has a long and hard road to travel in her East African colony just as we have had in most of our colonial adventures, but barring a major outside diversion such as an European war she will win through.

Before finishing, I would like to consider the military lessons we can learn from the campaign, and appreciate how at the cost of only some four-and-a-half thousand admitted casualties, Italy was able in seven months to conquer an Empire, contrary to the prognostications of all the chancelleries and general staffs of Europe not excluding their own. To take the latter first. The initial mistake the world made was not so much to underrate the

capabilities of the Italians but to overrate the cohesion of the Ethiopian Empire. We now know that the outwardly united front presented by the Ethiopian Empire was a facade, behind which the bonds of Empire were loose indeed and quite incapable of standing strain. The extent to which Italian propaganda and gold had undermined the loyalty of many of the Ethiopian subject races was also not realized. Later, when the war had begun, the failure of sanctions to take early effect and the lack of visible assistance gradually induced a feeling of despair amongst the Ethiopians. It was the reaction of a primitive people let down by methods which they could not understand. When the edifice did start crumbling poor communications prevented the Emperor from exerting personal control, and a merciless use of the air arm and of gas made the break-up complete. Italy was a signatory to the Gas Convention and it had been assumed that she would hesitate to use it.

The Ethiopian individually fought well but his higher leaders were mostly men of straw, jealous of each other, dilatory and incapable of sudden or sustained action. There was no competent "small leader" class between the big feudal lords and the soldiers such as is found amongst our own Indian frontier tribes. When the feudal lord fell or was discredited, his whole force at once lost cohesion and discipline.

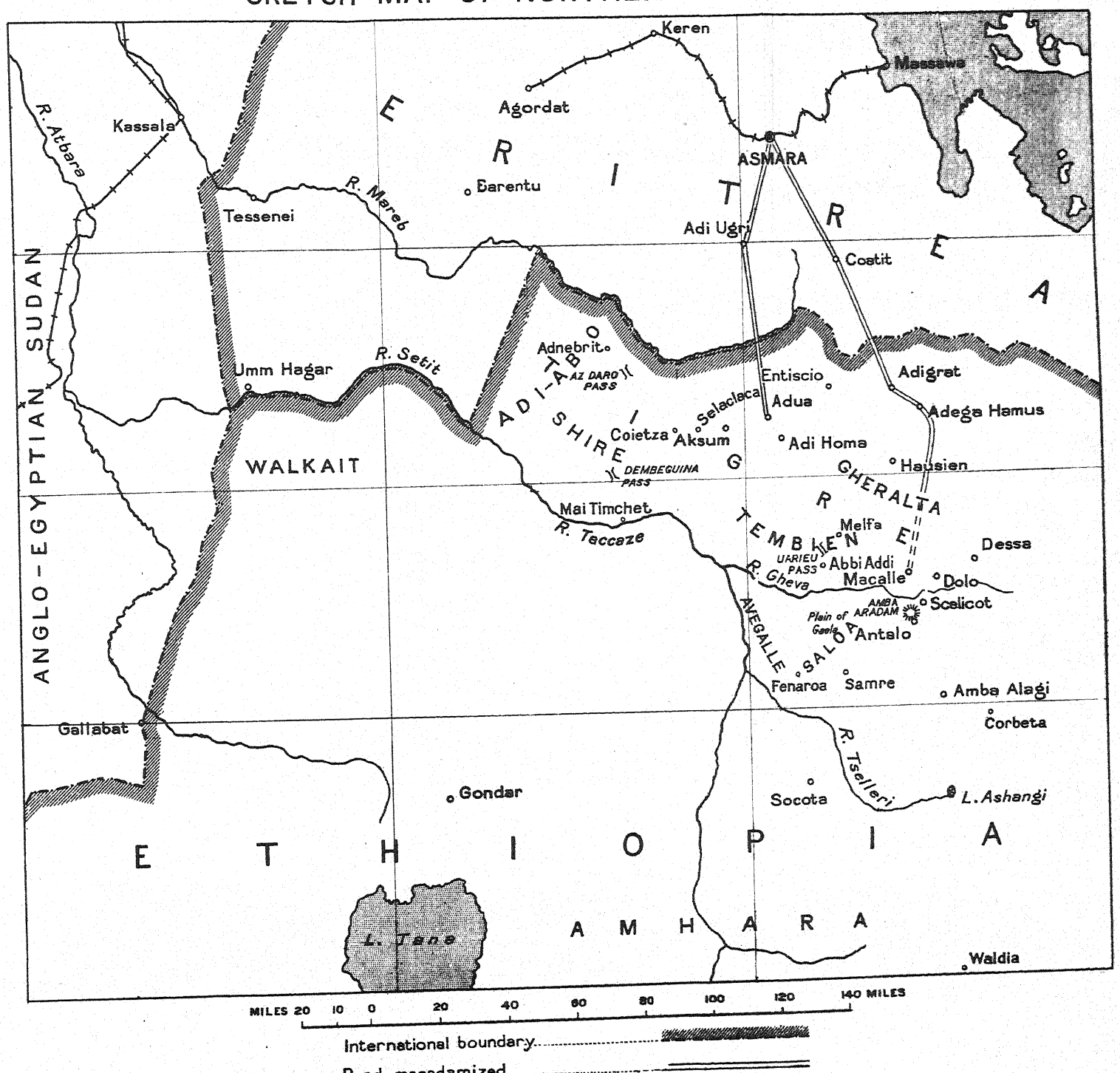
To turn to the military lessons:

The most important I will give in Marshal Badoglio's own words: "The war has upset much theoretical data, capacity of roads and tracks, use of mechanical transport, length and speed of marches, needs of the soldier. All this requires re-study in accordance with the underlying conception of making greater demands on all by all. This applies especially to mechanical transport which has now been proved capable of employment under conditions previously considered impossible."

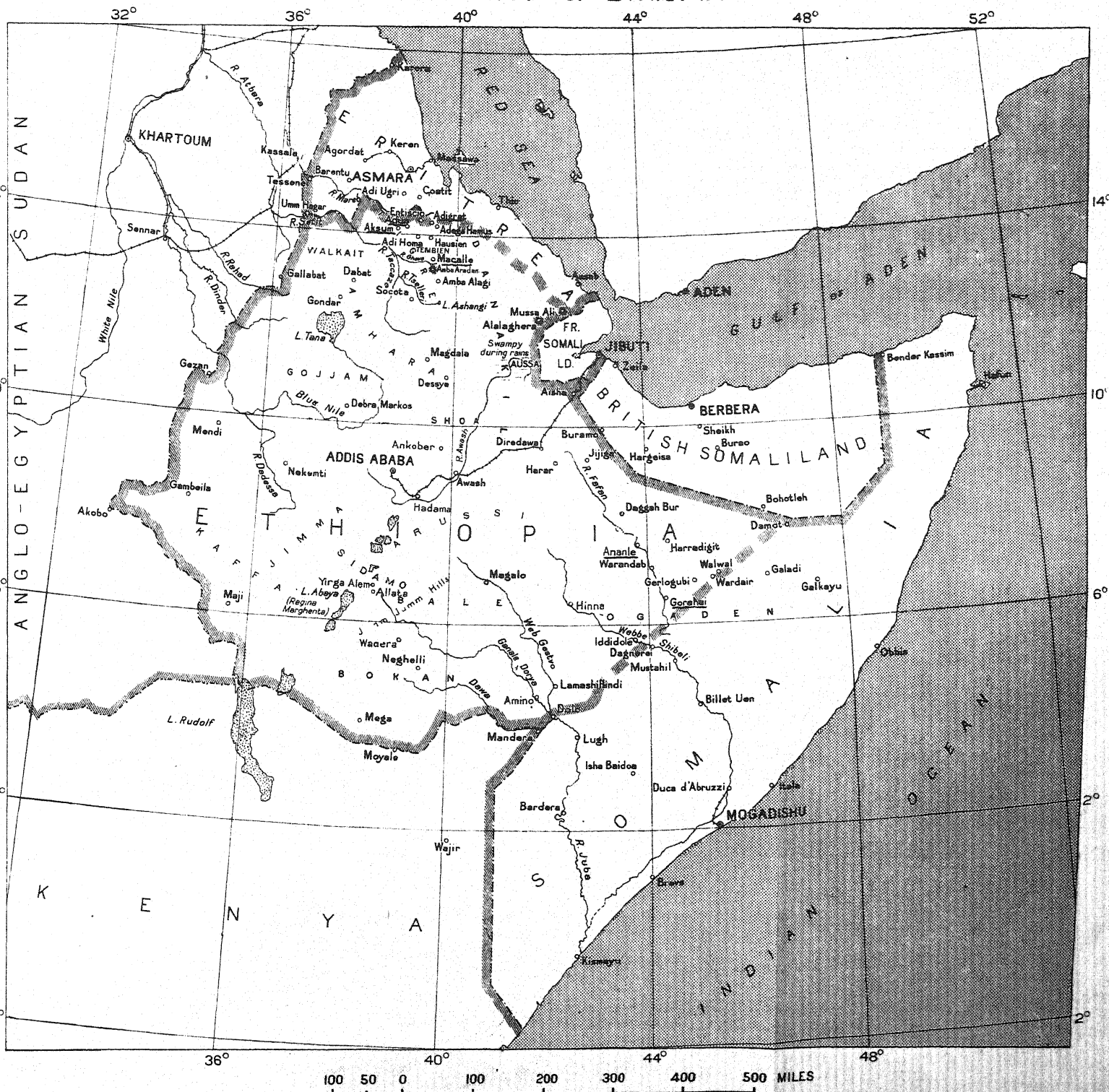
Secondly, the whole administrative organization was on a lavish, not to say wasteful scale, but it proved to be economical in the long run since the war was finished in one year. The wastage in lorries particularly was enormous. Are we not sometimes inclined to be overcareful of our material?

Thirdly, the Italians are very much more competent in every way than they appear to be to the average Anglo-Saxon observer. The appearance of their troops and equipment is often slovenly by Anglo-Saxon standards but because troops appear slovenly it

SKETCH MAP OF NORTHERN ETHIOPIA



Sketch Map of Ethiopia



does not mean, as it would with us, that their morale has deteriorated. It is a matter of difference in temperament and different values set on different qualities.

Fourthly, use of the air arm was interesting and novel. Apart from wholesale supply by air, aircraft often took the place of ground troops in both defence and attack. In the latter case low flying aircraft were used for providing covering fire instead of artillery. It is important to note that this was done against an enemy possessing no air force, but nevertheless the subject merits careful study for our own small wars.

Fifthly, the quality of the Eritrean troops and of their white officers proved to be high. At present the expansion of Italy's colonial army in Ethiopia is not excessive for the task of pacification, but should Italy ever think fit to build up a large colonial army there, the quality will be high.

In conclusion, I think one must pay a tribute to the generalship, power of accurate appreciation and will-power of Marshal Badoglio; to the inherent hardiness of the Italian soldier; and to the genius for improvisation of the Italian administrative staff. In my opinion, Marshal Badoglio will find a place in history amongst the great commanders. It is also worthy of note that few great commanders have ever received from their Home Government such complete confidence and whole-hearted support as Marshal Badoglio received from Signor Mussolini. Perhaps we as a race would do well to profit by that lesson.

RAID ON ARSAL KOT AND GULZAMIR KOT, 21st JUNE 1937

During the Spring of 1937, when the fighting in Waziristan was at its heaviest, the Faqir of Ipi, the leader of the tribal forces, had held his headquarters impervious to continual air bombardment in the big caves known as Arsal Kot. After the occupation of Sham Plain in May 1937 troops had advanced in a converging movement on Arsal, and Arsal Kot and the caves were destroyed.

The Faqir and his adherents disappeared into the mountainous regions bordering the Shaktu and the troops had again withdrawn to the Sham Plain where they were busily engaged in opening of the country by road making. Taking advantage of their preoccupation the Faqir began to feel his way cautiously back to his old haunts, conveniently situated, as they were, on the borders of Mahsud and Wazir land. By June he was back in Baramand, only a mile from Arsal Kot, and the sniping of camps and road protection troops and other acts of hostility were frequent. The organisation and encouragement came from the Faqir of Ipi.

At that time the Faqir had no large immediate following. The gangs would come and go and there was always a number of visitors, but the large *lashkars* had disappeared. On the other hand the Faqir still had the sympathy of the tribes and his capture would have had the greatest possible effect in bringing peace to Waziristan.

On the 17th June reliable information was received that the Faqir was at Gulzamir Kot, one mile south of Baramand, and a plan was made to capture him. The plan was formed under the following circumstances:

(*a*) There were two infantry brigades at Ghariom and one infantry brigade at Coronation Camp.

(*b*) Ghariom is five and a half and Coronation Camp eight and a quarter miles as the crow flies from Gulzamir Kot. The intervening country in both cases is difficult and hilly.

(*c*) If Scouts were to do the raid it was estimated that sixteen platoons would be necessary. But neither the Tochi Scouts nor the South Waziristan Scouts could, individually, raise sixteen platoons and at the same time hold their existing forts and camps. Therefore, if Scouts were chosen this would entail a combined force from both Corps.

(*d*) The imperative factor was to ensure secrecy. The only hope of the raid being a success was that it should come as a complete surprise.

(*e*) It was not expected that the Faqir would have a large following with him. But it was realised that if fighting started at Gulzamir Kot a *lashkar* of a thousand upwards might collect in two hours from the villages north and south of Barari Narai and intercept the raiding force in its way back to Sham.

In consideration of these factors it was decided that the raid should be done by Scouts. Their speed, their practice in village searching and round ups and their capabilities in breaking off an engagement quickly and extricating themselves from a difficult position made them suitable for the task. On the other hand, there was danger of loss of secrecy in concentrating the force. In the case of the South Waziristan Scouts the concentration entailed a two hundred mile lorry move.

On the night 18/19th June eight platoons of the South Waziristan Scouts under Major Skrine were moved by lorry from Jandola via Tank and Bannu to Mir Ali, where they arrived in day light and stayed for one day. On the 20th this party moved by lorry to Dosalli where eight platoons of the Tochi Scouts under Major Felix Williams had already been collected. At 6 p.m. on the 20th the sixteen platoons, in lorries and escorted by tanks, proceeded from Dosalli to Ghariom.

The arrangements from here were as follows:—The Scouts were to move out by night and raid the Gulzamir Kot area at daybreak. As soon as possible after daybreak the 1st Indian Infantry Brigade was to arrive at Pasal, a point two miles up stream from Arsal Kot and cover the Scouts in their retirement.

Major Felix Williams' plan was as follows:—

(*a*) A combined march of both Scouts corps to the Shaktu at Pasal along the nullah as shown in the sketch map.

(*b*) At Pasal the two corps were to split. The South Waziristan Scouts were to make for the high slopes on the south bank of the Shaktu and bear down on Gulzamir Kot. The Tochi Scouts were to advance through Pasal to the Baramand area, block the Shaktu, search the area and, if necessary, provide a reserve to send to the South Waziristan Scouts if needed on the south bank. Both corps were to act independently in their areas, but when ready to retire the order would come from Major Skrine.

The Scouts were to follow their usual method of night patrolling, but special emphasis was laid on "No shooting." If the enemy opened fire men were to kneel, fix bayonets and wait for an officer's order.

The Scouts had six British officers and were accompanied by a gunner subaltern as forward observation officer and by their own medical officer. The men numbered six hundred.

At 11 p.m. the party moved off with Tochi Scouts leading, Captain Gimson commanding the van. A last minute report that twelve Mahsuds had been seen that day piqueting the route was disregarded on the supposition, afterwards proved correct, that this was only a day piquet.

The route followed was *via* the Sham Algad, the track in squares 0726 and 0825 and thence down the nullah from 086254 to where it joins the Shaktu. There was a small moon, which enabled the column to thread its way through the innumerable boulders which lay across the narrow path, lying deep between steep faced cliffs which closed in from time to time to form unscalable ravines. The column moved in a loose file march formation spread over the best part of half a mile. The forward platoons moved slowly enough, but those behind were running most of the way in the endless concertina characteristic of night marches. After three hours the Shaktu was reached, the distance covered being about five miles. All was quiet and it seemed that the mass of Mahsud villages which began one mile upstream in the Shaktu were still unaware that the Scouts were now between them and their Faqir. The South Waziristan Scouts now moved to the south bank of the Shaktu, the Tochi Scouts remaining on the northern side. From here the two corps moved independently. The going was still difficult though less confined. There was now no track to follow, but the bed of the Shaktu lay below, forming both a guide and a dividing line. The last two miles of the advance took up two hours, and by 4 a.m. the Scouts were formed up behind the areas to be searched. Forward reconnaissances were made in the dark and at 4.45 a.m. the Scouts, breaking up into smaller formations, moved forward into chosen positions round the area. First light was at 5 a.m., and by 5.15 a.m. the Scouts were established in positions as under:—

Tochi Scouts.—The ridge from (exclusive) Arsal to (exclusive) Knoll 156278, with a block in the Shaktu about 158275.

South Waziristan Scouts.—The high ground on the general line 154264 to 143263 with a block in the Shaktu about 141266.

At 5.15 a.m. the search began in the following areas:

Tochi Scouts.—The ground lying in squares 1427 and 1527.

South Waziristan Scouts.—The nullahs in square 1426 to their junction with the Shaktu; later Gulzamir Kot and the other Kots shown on the map in square 1426 and the ground in square 1426 and 1526. The blocks remained in position and the searching parties with fixed bayonets moved off in well opened formations into their areas. The first thing to be noticed by the Tochi Scouts was a small village on the left bank, not marked on the map, at 157270. Scouts entered the huts which they found to be deserted except for one of them in which were two Hindus, lying bound and gagged in a corner of the room. While the Hindus were being released another party of Scouts noticed some caves near the village which were occupied. One man in the mouth of a cave was laying a careful aim with his rifle, but seeing the Scouts advancing rapidly towards him he hastily abandoned his rifle and he, together with three companions surrendered. He afterwards proved to be the much wanted Arsal, the host of the Faqir of Ipi throughout the spring fighting. The two Hindus had been kidnapped from Bannu four months previously and were being held to ransom. They were in a half starved condition being little more than skin and bone, and were incoherent in their gratitude on being released.

In the South Waziristan Scouts area seven Mahsuds were arrested in Gulzamir Kot. There were also a few women about the place who were left, but were not allowed beyond the blocks. At 6 a.m. a man was seen approaching the village from the Shaktu. He was ordered to halt but attempted to run away. When surrounded he calmly lay down and loaded his rifle, whereupon he was shot dead. He afterwards turned out to be a Mahsud mullah who had been a figure of some importance in the Faqir's headquarters.

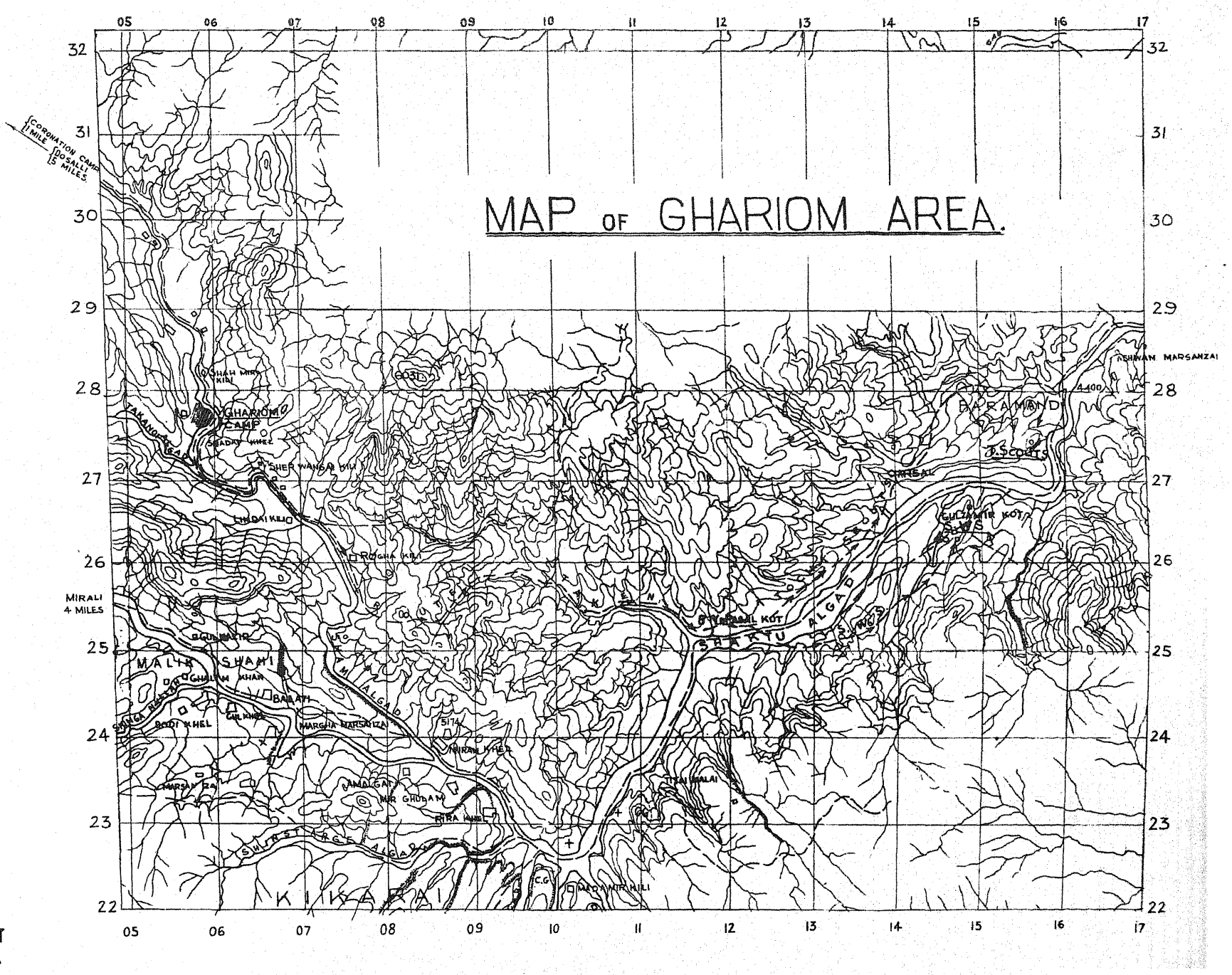
At 6.30 a.m. the search was over. The Faqir was not in the area. The countryside was quiet and the one shot fired during the operation did not appear to have attracted attention. The withdrawal was organised and commanded by Major Skrine and the Scouts of both Corps fell back through a series of blocks. There was no following up and the 1st Brigade was met holding their position at Pasal. Ghariom was reached without incident.

Many days after the raid it was established that the Faqir had received information on the 20th (the day before the raid) that a raid was likely to be made on Gulzamir Kot, and had accordingly

moved to Marsanzai Mela (not marked on the map), on the evening of that day. On the arrival of the Scouts at Gulzamir Kot he was said to have left Marsanzai Mela in an easterly direction, his head muffled in a sheet. He thus very narrowly escaped capture. But the area of the search had been stipulated and the limit fixed. A non-observance of this limit might have led the Scouts through an endless number of unnamed Kots extending down the banks of the Shaktu until they were beyond supporting distance of the brigade.

The results of the raid were the release of the Hindus and the capture of Arsal. Following this capture the son of Arsal made his peace with Government, and has since kept this area quiet in the hopes of obtaining the release of his father from prison.

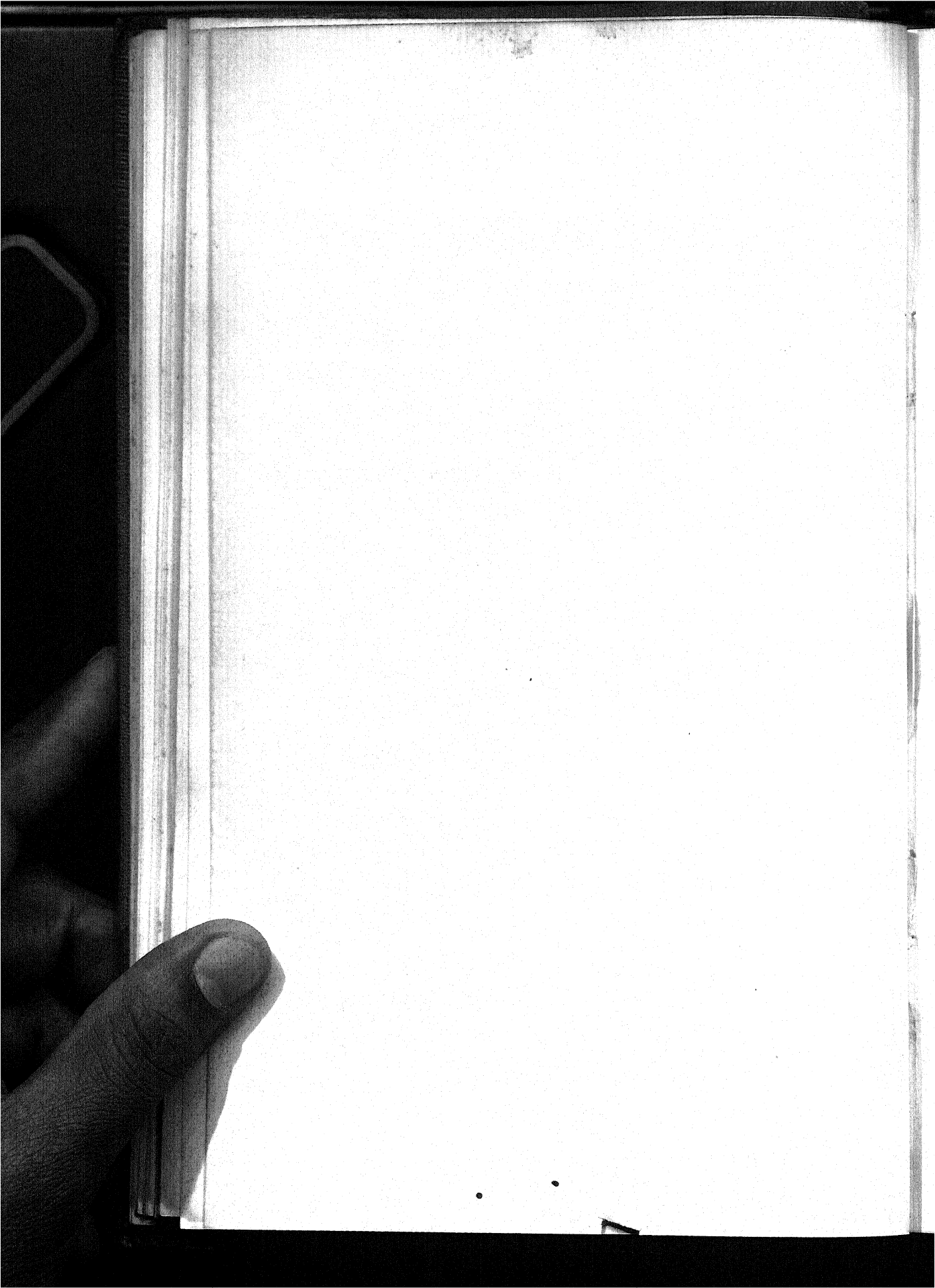
MAP OF GHARIOM AREA.



LEGEND

FOOT PATH SHEWN THUS

NULLAHS — — — DO — — —



INDIA'S SEA HISTORY AND ITS LESSONS

By Lieut.-Commander H. E. Felser Paine, *Royal Indian Navy.*

In the earliest days of India's sea history, Indo-European trade was carried on by Arabs and Phœnicians; the former in the Red Sea, Persian Gulf, and Indian Ocean, the latter in the Mediterranean. Although the control of trade in the Mediterranean passed through many hands in the succeeding centuries Phœnician, Greek, Roman and Venetian, the Arabs managed to retain their monopoly on the seas east of Suez until the discovery of the Cape Route and the arrival of the Portuguese.

As regards the Far East, trade between India and China seems to have been carried on almost entirely by the latter country. There are several excellent descriptions of Chinese craft from such early writers as Ibn Batuta, Friar Jordanus, and Nicolo Conti, all of whom agree that the junks of those days were large and well built. Ibn Batuta mentions that thirteen Chinese junks were lying off Calicut when he was there. He describes the largest as carrying six hundred sailors and four hundred soldiers, others write of them as carrying crews of from two to three hundred. Each large junk was accompanied by three or four tenders, which were often used to tow their parent ship during a calm.

Gradually the Arab seamen must have penetrated further and further east, for when Vasco da Gama first arrived at Calicut the Arabs seem to have had a complete monopoly of the sea trade of the Indian Ocean. Apart from pirates, who were a menace from the first, and private quarrels with rival traders, they had indeed had little opposition to fear. But an entirely new situation was created by the arrival of Vasco da Gama and his four ships. It did not take the Arabs long to realise that this new rival would soon become a real menace to their trade and they did their best to destroy the newcomers. Although greatly outnumbered in their early fights, the Portuguese possessed two distinct advantages, superior armament and greater tactical skill, as a result of which both Da Gama and Albuquerque gained striking victories over their opponents.

At that time the centre of trade in the East was the Malabar Coast. From there ships sailed for the west either through the Gulf of Aden and the Red Sea or by the Persian Gulf, and ships trading between India and China passed through the Malacca Straits. For any hostile fleet the obvious points of attack were the entrances to these narrow seas, and it did not take the Portuguese long to discover this. Some eight years after Vasco da Gama first sighted Calicut, a fort was built and a garrison established at Socotra. Albuquerque with his squadron next sailed to Muscat where the Sultan surrendered after a short action and agreed to allow the Portuguese to build a fortified trading station. From Muscat he proceeded up the Persian Gulf to Ormuz which surrendered unconditionally after one of the most amazing actions in the whole of naval history. The capture of such places as Malacca and Goa followed later, and for a time the Portuguese had squadrons of ships based on Goa, Aden, Ormuz and Malacca, besides having additional bases at such places as Cochin, Diu and Muscat. Thus they became complete masters of the Indian Ocean. At one time Albuquerque even ordered the blockade of the other West Coast ports so that all trade would have to pass through Goa. His was undoubtedly a master mind in the control of sea communications.

With the arrival of the Dutch and the English the whole outlook of the Portuguese was changed. Up to that time their sea communications had been comparatively safe but now, in addition to defending their stations from attacks by land, they had to be prepared to withstand attacks at sea. Still, they had the great advantage of being in possession of fortified bases from which their squadrons could pick up fresh supplies of ammunition and stores.

While the Dutch had been penetrating the Malay Peninsula, the English had been trying their luck in the Gulf of Cambay. The Portuguese had a fortified base at Diu, and when, during the sixth voyage of the East India Company, Sir Henry Middleton arrived off Surat the presence of a Portuguese squadron prevented the Gujeratis from doing any trade with him.

In February 1612 Captain Thomas Best sailed from Gravesend with the "Dragon" and the "Hoseander." Six months later these two ships anchored off Surat. As there was no

Portuguese squadron present Best at once started trade negotiations and a treaty was signed with the Governors of Ahmedabad and Surat. As soon as the Portuguese heard of Best's arrival a squadron of four galleons was sent to drive him away.

The Portuguese ships were bigger and far more heavily armed than the small English vessels, but they were chiefly manned by soldiers. The "Dragon" and the "Hoseander" were handy and manned by expert seamen, with the result that the Portuguese were continually outmanœuvred. After the first engagement, at one period of which three enemy ships were ashore, Best went across to the other side of the Gulf for water and supplies. When the Portuguese followed, he at once put to sea and attacked them and, after an engagement lasting two days, damaged them so severely that they had to retreat to Diu for repairs and supplies. Best, however, was also in a difficult position as he was running short of ammunition and had no base to which he could return for a further supply. Had the Portuguese attacked him again a very different story might have been written, but although they once again appeared in sight, they left his two ships severely alone, neither did they interfere with the merchants who had been left on shore. Thus was struck the first blow for English trade in the east.

Meanwhile the Dutch had concentrated on the Malay Archipelago. Although they failed for some time to capture Malacca from the Portuguese, they were able to found their own headquarters at Batavia, close to the Straits of Sunda, and to destroy any English trade which existed in that region. And the Portuguese themselves were unable, owing to shortage of ships, to interfere seriously with this establishment of Dutch trade. By the beginning of the seventeenth century the three European powers were fighting, more or less openly, for control of the Indian Ocean. Shortly afterwards the Dutch and the East India company at home concluded an alliance against the Portuguese and a combined Dutch and English fleet blockaded Goa. This meant that, although the Portuguese still held Goa, no merchandise or ships could get back to Portugal. It also meant that no reinforcements from Indian shores could reach the Portuguese squadron in the Persian Gulf, a fact of which the East India Company were quick to take advantage. An expedition was despatched, which destroyed the Portuguese squadron in the Gulf

and, with the aid of Persian troops, captured Ormuz. By 1650 Portugal's sea power in the east had vanished. Malacca had been captured after a siege of over ten years, Goa had been blockaded several years in succession so that its trade with Lisbon had come to a standstill, Muscat had been taken by the Arabs, Galle and Trincomalee had fallen to the Dutch. The Portuguese who had started the century with the tremendous advantage of being the only nation with good fortified bases in the east had lost them through having insufficient ships to keep their sea communications open. The Dutch, in particular, with their superior fleet, were building or capturing bases as they required them. Meanwhile the English, who were badly in need of a fortified harbour, were ill-prepared in the east for the war which broke out with Holland in 1652, and an English fleet was severely defeated in the Gulf of Cambay. Fortunately, however, for the East India Company, English fleets in home waters gained decisive victories, with the result that they could await and capture the rich convoys from Batavia as they proceeded up the English Channel. When peace was declared, the Dutch were compelled to recognise the rights of the East India Company in Eastern waters. In spite of this it may be said that throughout the second half of the seventeenth century the whole of the eastern trade was, more or less, controlled by the Dutch and it was only the superiority of the English fleet in home waters that prevented the former from taking action against the East India Company settlements. And the latter were steadily expanding. The foundations of Fort St. George were laid at Madras in 1639. Bombay was acquired as part of the dowry of Catherine of Braganza in 1662, and by 1686 Englishmen had started to settle at Calcutta.

The closing years of the century brought trouble of a different sort. There was a shortage of both English and Dutch ships in the east, with a consequent loss of European prestige. A Mohammedan fleet of nearly a hundred ships blockaded Bombay, which had recently become a headquarters of the East India Company, but failed to capture it. At the same time the Sultan of Muscat's fleet attacked the Mahratta sea forces and raided many of the Malabar ports. A few years later this same fleet attacked and captured a great part of Portuguese East Africa, which for a time became a colony of Muscat.

It is at the end of this century also that a new factor appears on the scene in the person of the European pirate. Chivers in the "Soldado," Babington in the "Charming Mary," Bowen in the "Speaker" and Culliford were operating at about this time, to say nothing of the famous Captain Kidd. A squadron of Danish pirates was cruising in Eastern waters. Not unnaturally native pirates, who had been active since ships sailed the Indian Ocean, became more dangerous than ever before.

The most famous of these were the Mahrattas who operated from their headquarters at Viziadroog along the whole of the coast between that place and Bombay. Indeed, it was not until 1756 that they were finally attacked and destroyed by Admiral Watson who had with him fourteen hundred men commanded by Clive. Other notorious pirates of the period were those of Kutch, with headquarters at Beyt, the Joasmi of the Persian Gulf and the Muscat Arabs. The last named were deep sea pirates and for that reason, next to the European, the most to be feared.

The next century opened fairly quietly, the three European Powers were at peace, and apart from the continual raids of pirates, there was little fighting. The latter half of the century, however, brought a new rival into the field, in the shape of the French. For the first time in the history of the Indian Ocean most of the fighting took place in the Bay of Bengal.

The first of the three wars between the English and the French was chiefly remarkable for the brilliance of the French naval commander, La Bourdonnais. Early in the war he took Madras, but later had the misfortune to have nearly the whole of his fleet destroyed by a cyclone, which necessitated a hurried retreat to Mauritius, at that time the nearest French base, for repairs. A further blow to French chances of victory in the East was struck when a squadron of their ships sent to join La Bourdonnais in Mauritius was completely destroyed by an English fleet in the Bay of Biscay. Finally at the treaty of Aix-La-Chapelle Madras was handed back to England.

The Seven Years' War again renewed the struggle between the two countries. This time, after three bloody if indecisive battles, the French were forced to retreat for good. The cause of this was, to a great extent, lack of bases and stores. After the first engagement the French squadron refitted at Pondicherry. After the second the supplies at Pondicherry were exhausted and

the squadron was forced to go to Mauritius, only to find that supplies there were also very low. The English fleet had in the meantime had a complete refit in Bombay. Thus, after being badly damaged in the third engagement, the French ships were forced to return to France, and for the first time in history the British were left in undisputed command of the eastern seas.

For fifteen years England was at peace, and then once again she found herself at war, this time to be opposed by the combined fleets of France, Spain and Holland. Even more serious from the point of view of her ships out east was the fact that the French fleet was commanded by Admiral Suffren, probably the most brilliant sailor of that period. After four rather indecisive engagements, in which Suffren had been badly supported by his captains, the English fleet was severely defeated in the fifth. Thanks, however, to the victories of Howe and Rodney in western waters, Britain was able at the peace which was shortly afterwards declared to keep her Indian possessions, so that Suffren's brilliance was of little value in the end. With his departure ended the challenge to British supremacy in the Indian Ocean.

In the years 1914-18 no big fleets invaded Indian waters, but we learnt yet another lesson, the lesson of the damage that can be done by a single modern raider such as the "Emden."

In 1914 the East Indies Squadron consisted of the battleship "Swiftsure," the light cruisers "Dartmouth" and "Fox" and three sloops. At the outbreak of war the "Swiftsure" and the "Dartmouth" at once sailed to cut off the cruiser "Königsberg," then based at Dar-es-Salaam, from the Gulf of Aden. The "Fox" and one sloop were left to patrol off Colombo and along the route between Colombo and Minikoi. It was obvious that with so few ships on guard the Indian Ocean was almost an ideal hunting ground for a raider. The "Emden" was soon to demonstrate this. As soon as her depredations became known the "Hampshire" and the "Yarmouth" from the China squadron were sent to look for her, as also were the Japanese light cruiser "Chikuma" and the Russian light cruiser "Zhemchug." In spite of these ships the "Emden" continued her raids with such success that in the space of two months she accounted for twenty-four ships. Their total value together with their cargoes was estimated at well over £2,000,000. In addition to this she did considerable damage at Madras and Cocos Island and sank the "Zhemchug" and a French

destroyer at Penang. Perhaps the greatest sign of her success was the fact that, except for a short period during the 22nd and 23rd of September, all trade routes in the Bay of Bengal were closed from 14th September to 2nd October.

Such, then, is a brief summary of India's sea history, and in studying it the following four points have, I think, stood out in the past. In the first place naval supremacy in the Indian Ocean alone has seldom proved sufficient. This was shown on several occasions, especially perhaps in the Dutch war of 1652 and in the third French war. In the second place the importance of having fortified bases at strategic points is obvious. Every war that has been fought in the Indian Ocean has shown the need for them. Singapore to-day is many times more important to us than Malacca or Batavia ever were to the Portuguese or the Dutch, for in those days there were no great naval powers in the Far East. In the third fortified bases without sufficient ships to keep communications with them open are of little use. This was demonstrated in the history of Malacca and in the blockade of Goa by Dutch and English ships. Lastly, although no hostile fleet may be threatening the Indian Ocean, it is a fatal policy to leave trade routes insufficiently protected. The increase in piracy at the end of the seventeenth century was directly due to this, and so, to a certain extent, was the success of the "Emden" in 1914.

GOLD MEDAL PRIZE ESSAY 1938

The following essay by Lieut.-Colonel C. M. P. Dunford was highly commended by the judges.

SUBJECT

"Discuss the dictum that the size of modern armies has rendered strategy wholly subordinate to tactics."

INTRODUCTION

This paper is not in agreement with the view which the dictum expresses, which, it is felt, is based on too narrow an application of the term "strategy" and results, to a great extent, from a failure to appreciate the events of the war of 1914—18 in their true perspective.

If, for example, the future of strategy is under consideration, it is necessary to take into account many other factors than the size of modern armies. The mobility conferred by sea-power and perhaps, in future, by air transport, must be given due weight. Then again, the flexibility of air striking-power and the additional mobility conferred on modern armies by mechanization must be taken into account, while beyond these lies the influence exerted by such weapons as blockade, contraband control, financial and economic pressure and propaganda.

Strategy in future wars will thus, it is suggested, reflect the influence of many factors varying from the political to the military and will by no means be solely subordinated to tactics by reason of the size of the forces engaged.

While, however, making every reservation in connection with this interpretation of strategy in its widest sense, it still remains to examine the dictum in its more narrow application—in a situation in which opposing armies are present in a theatre of operations—a situation which must still presumably arise in spite of all that may occur in the wider field of the grand strategy of any particular war as a whole.

It is in this narrower application that the suggestion is made that the dictum results from a faulty perspective of the course of the War of 1914—18, particularly in France and Belgium.

The average man who survived the experience of service on the Western Front retains a mental picture—as evinced in many books of reminiscences—of weeks or months of alternating duty in the trenches or at "rest," interspersed by nightmare periods of incredible experiences during one of the great offensives. To

him the new tactical methods as they were evolved, the new weapons as they became available and, above all, the limited objective, seemed the ultimate horizon. Could he with his platoon,—his company, or even his brigade,—but seize and hold an allocated fragment of the enemy's defences in front of him, or keep the enemy out of his own bit of the line, his task was done, his heart was full of thankfulness and pride. He might hear from time to time, almost with a sense of pity, some whisper of a great strategical conception, but to him the immediate tactical problem was the beginning and the end of everything.

It is believed that the collective effect of thousands upon thousands of such personal impressions has gone largely to produce the feeling that the size of modern armies places strategy in the background and will cause tactics to become the dominant factor in future campaigns,—

> "So that the ram that batters down the wall,
> For the great swing and rudeness of his poise,
> They place before his hand that made the engine,
> Or those that with the fineness of their souls,
> By reason guide his execution."*

In this paper it is proposed to examine some of the main phases of the Great War on the Western Front, as far as may be done in the space available, in an attempt to confute the dictum in the very circumstances in which it would, at first sight, appear to be most easily supported. An endeavour will also be made to present what is believed to be a truer picture of the relationship between strategy and tactics, the size of modern armies notwithstanding.

It will be impossible to exclude all mention of operations in other theatres owing to their connection with and influence on events in France and Belgium, but considerations of space will keep such references to a minimum and at the same time will limit even a brief examination of operations on the Western Front to the following main examples:

(*a*) The Opening Phase in 1914 (Germany).
(*b*) „ „ „ „ „ (Allies).
(*c*) September 1915.
(*d*) 1916. Verdun and the Somme.
(*e*) 1917. Ypres and Passchendaele.
(*f*) 1918. The last German attacks and the final phase.

*"Troilus and Cressida."

THE OPENING PHASE IN 1914 *(GERMANY)*

Lest it be said that the opening period of the War forms no good basis for the examination of our dictum, because the forces then engaged had not grown to the enormous size which later subjugated strategy to tactics, it is worth recording that the Allies' casualties on the Western Front in the first three months amounted to just under one million men and those of the Germans to some 677,000. It is of this phase that Mr. Winston Churchill remarks: "The scale and intensity of the first shock in 1914 has not been fully realised by the well-instructed French public, and is not at all understood in England."*

The German plan was conceived by Schlieffen as far back as 1905 but was modified in the years before the War. Its aim was the destruction of the French army before Russian intervention could make itself seriously felt. Speed being essential, it was decided to avoid the French fortress system by moving round it to the north. The success of this plan depended on the provision of overwhelming strength in the mass on the right wing, together with the consequent retention of none but the minimum essential holding and security forces on the French frontier and in the East. No attack was to be delivered by the German left until the French had been enveloped and driven back against their own fortifications and the Swiss frontier.

In spite of the strategic surprise which the Germans immediately attained by augmenting their first line with reserve formations, and thus producing far larger forces than had been anticipated, the plan failed and it is for us to consider whether this failure resulted from the size of the forces having subjugated strategy to tactics.

Schlieffen had intended that, in order to gain space for movements, save time and facilitate maintenance, the German right wing should move not only through Belgium, but also across South Holland and the Limburg "Appendix." Moltke, who succeeded Schlieffen as Chief of the Prussian Staff in 1905, abandoned this idea in order to avoid forcing Holland also into the ranks of Germany's opponents. The administrative difficulties of the German armies were thus increased and they were rendered additionally susceptible to the delaying power of the Belgians.

Moltke also strengthened the German left at the expense of the all-important right and thereby decreased the proportion between the two wings, according to German accounts, from 7 to

*"The World Crisis 1916—18." Part 1. Chap. 11.

1 to 3 to 1. It is true that the passage of time probably compelled some readjustment of the plan and that the intention was to return the borrowed formations as soon as the situation permitted. In the event, however, the Belgians effected damage to the strategic railway by which this movement would have been carried out and thus frustrated the idea, although the Germans actually had the railway rolling stock in readiness. After the campaign had commenced the German right was further weakened by the premature despatch of reinforcements to East Prussia and by an over-generous provision to contain the Belgians at Antwerp. Finally, the mistake was made of launching what had been intended as the final phase of the Schlieffen plan—the attack by the German left—before the French had been surrounded.

The result of these actions in the strategic field was that the redoubtable German right could only muster some 13* divisions against twice that number of Allied formations when the latter turned on the invaders at the Marne, and it was these same strategic factors which caused the failure of the German plan, rather than the effects of the size of the forces which took part in the many severe tactical encounters of the early weeks of the War, at Mons, Landrecies, Le Cateau, Guise, and elsewhere.

Our dictum is, in fact, confuted categorically by the British Official History of the War, which says that Moltke failed, not because the presence of such large forces undermined the power of strategy, but because he had not the forces necessary for so vast an operation.† In General Ironside's words, "the German enveloping movement failed through lack of numbers."‡

THE OPENING PHASE IN 1914 *(FRANCE)*

Swayed by Foch's doctrine of the supreme importance of the offensive and with no intention of violating either Swiss or Belgian neutrality—which they anticipated would be similarly respected by Germany—the original French plan was to attack the German centre through Alsace and Lorraine.

The French plan of concentration made no provision "to meet an envelopment carried out through Belgium west of the Meuse or to cover the gap between the western flank of their Fifth Army (about the river Oise) and the sea." (§) In other words it was admirably conceived to aid the German plan. Even

*See "The War in Outline." Liddell Hart. P. 36.
†"Military Operations, France and Belgium, 1914." P. 61.
‡"Tannenburg." Ironside. P. 285.
§"Military Operations, France and Belgium, 1914." P. 17.

when it was learned that Belgian neutrality had been violated and the Belgian appeal for assistance was received, Sordet's Cavalry Corps, which reconnoitred to the vicinity of Liege, failed to discover any large German forces. The fact was that the Germans had not yet crossed the Meuse, but the inference drawn by the French High Command was that no important German forces were present in the north.

The French offensive in Lorraine was repelled because tactical training had failed to appreciate the enormous strength of fire-power when combined with the intelligent use of ground in the defence. Nor had the French forces which participated a sufficient margin of superiority over their opponents to provide a reasonable chance of decisive success.

It appears that the French strategy was inherently faulty in undertaking an initial major offensive in face of a potentially superior enemy who held the initiative but, for the purposes of examining our dictum, it will suffice to pass this point and to explain how the complete defeat, which the dictum would infer must have succeeded the tactical failure of their main conception, was averted by the French.

Did the size of the forces engaged render strategy wholly subordinate to tactics?

By the 15th August Joffre at last realised that large German forces were advancing through Liege and at once commenced to extend and strengthen the French left by forming a group of divisions around Arras which, in part, consisted of formations withdrawn from the Lorraine front. The Fourth Army was also moved from the rear of this front towards the Ardennes with the Fifth Army on its left and the B.E.F., on its arrival, further to the left again. These strategical movements were successfully carried out in spite of the size of the forces concerned and of the fact that important battles continued on the Lorraine front as late as the 23rd August. From these battles, moreover, the French were also able to extricate themselves and to withdraw to the shelter of their fortified zone.

Even with this redistribution successfully accomplished, and in spite of the reductions in the strength of the German right to which reference has been made, the Germans were able to bring 400,000 troops against some 270,000 of the Allies when their blow fell on the Allied left, between Dinant and Mons, on the 22nd August. As General Maurice remarks, "Almost before they had fired a shot (*i.e.* before the influence of tactics had been felt) the French and British armies on the left flank were compromised."*

*"Forty Days in 1914." Maurice. P. 55.

The forces involved were large and had strategy been completely dominated by tactics the situation must surely have resulted in a decisive action. But again the Allies were able to avoid being pinned to the ground and successfully carried out their strategic withdrawal to the Marne, in spite of daily tactical encounters.

During this withdrawal the German strength of purpose weakened and the stubbornness of the French resistance to a premature offensive by the German left seems to have drawn the German armies of the centre and right, as they advanced, away from their true route for the encirclement of Paris and the envelopment of the left of the Allied armies.

From this "closing to the left" arose the vitally important change of direction by Von Kluck's First Army which, passing to the east of Paris instead of around it to the west, presented a flank which Joffre and Gallieni were able, in turn, to threaten with envelopment. This threat—for the tactical situation, in fact, hardly developed—caused the Germans to withdraw, and with the Allied advance to the Aisne which followed there ended a phase of the War in which enormous armies had concentrated, deployed, advanced and retired and in which countless severe tactical engagements had taken place. Yet it is suggested that throughout the phase the power of movement had enabled strategy to dominate the main currents of the campaign.

In the somewhat leisurely Allied pursuit of the retiring German forces to the Aisne it is possible to perceive examples of the way in which inadequate tactics may prevent the full rewards of strategic success from being gathered. In a situation where speed and boldness meant everything it appears that for some time the necessity for neither was emphasised by the High Command. Cavalry are seen advancing behind their own infantry, while short marches and excessive caution prevented the gaps in the German front from being exploited or the exposed flank from being rolled up. Allowance must be made for the fatigue of the troops but the conduct of the operations cannot avoid comparison with the tactical doctrine contained in the 1909 edition of Field Service Regulations which taught that, "the force will take up the direct pursuit . . . and will continue it night and day without regard to the exhaustion of men and horses" . . . "all pursuing troops should act with the greatest boldness." Tactics in this case dominated strategy to the extent of robbing it of its just rewards, but the size of the forces engaged was not an important factor.

The next phase of the operations in France, sometimes referred to as the "race to the sea," consisted of attempts by each side to locate and envelop the exposed flank of their opponents and to prevent a similar process being applied to themselves. It may be said to have terminated when the Germans, realising too late the importance of the Channel ports, attempted to break through at Ypres. The greater part of the phase consisted in strategic moves to the northern flank in which formations, withdrawn from other portions of the field, were diverted and augmented by new formations from reserve to extend the front. Neither side attained its offensive object, partly because insufficient forces were available and partly because the strategic conception on neither side was sufficiently bold. The German attempt at Ypres was an example of the way in which a failure in the strategic field (lateness in appreciating the value of the Channel ports) can present tactics with an insoluble problem.

It is believed that, as far as this review has gone, it will be agreed that the dictum cannot be upheld. But those years were still to be endured in which the enormous resources of manpower and the strength of modern weapons in an organised system of defences seem at first sight to have doomed strategic conception to failure. We must therefore see whether the dictum can be refuted on the basis of the experiences of 1915, 1916 and 1917, those years of deadlock and apparent stalemate on the Western Front. Before doing so, however, it appears desirable to offer certain general observations on the conditions in France and Belgium and on the relationship between the situation there at the end of 1914 and the wider strategic field of the War as a whole.

It will be recalled that, when their attacks at Ypres died down, the Germans, on account of preoccupations in the East, passed to the defensive in France and Belgium. The experiences of the War had already indicated the seriousness of the tactical problem which an attack on organised defences would present. On the Allied side the original first-line formations had sustained extremely heavy losses and the unforeseen and unparalleled expenditure of munitions had reduced reserves, particularly of artillery ammunition, to disappearing point.

Flanks which might be enveloped no longer existed and neither the tactical training of commanders and men, which had prepared them for open warfare, nor the numbers available, were adequate to deal with the new problem of penetrating systems of field defences which grew more formidable with every day that passed. The High Command in the field, on both sides still

believed that mobility might be re-achieved and a decisive blow inflicted in the comparatively near future, but looking back these twenty and more years and with access to material for a more complete picture than was possible amid the distractions of the time, it seems that a lull was inevitable on the Western Front, while new formations were raised and equipped; their commanders and staffs selected and trained; supplies of munitions replenished and increased; and the new tactical problems appreciated and solved.

It is true that there are evidences on the Allied side of a general desire to use the lull in order to take stock of the situation as a whole, so as to evolve some plan which would re-achieve the mobility which the exercise of strategy, in general, demands. But the lack of any adequate organization for the Higher Direction of the War rendered agreement on any new wide strategic conception impossible. Moreover there were two factors in particular which exercised a determining influence on the course of events.

In the first place the Allied High Commands in France, basing themselves on the principle that France was the critical theatre of the War, held most strongly that the employment of any forces elsewhere than on the Western Front would be prejudicial to success at the decisive point. The weight of this contention defeated the proposals of those who advocated that the enemy should be merely held in France, where he was strongest, while the flank of the Central Powers and their Allies, as a whole, should be sought for and enveloped. It appears that, in the end, larger forces were actually employed in subsidiary campaigns, and less results achieved, than would have been the case had co-ordinated measures been adopted promptly when the opening period of mobile operations ended on the Western Front. Space, however, will not permit any examination of the possibilities which existed at the end of 1914, and it must suffice to remark that the defeat of the broader strategic conception of the War as a whole—to which the eventual collapse of Russia cannot but be largely attributed—played an important part in shaping the future course of events in France; in limiting the possibilities open to strategy, and in proportionately raising the importance of tactics.

The second of the two factors, of which mention has been made, was the undue importance which for long was attached to the possession of every yard of ground in France and Belgium for reasons of sentiment and prestige, and entirely apart from any tactical or strategic considerations. It is not difficult to sympathise with the determination of the French that not another

yard of their soil should pass into the possession of the invaders, but at the same time it must be recognised that adherence to this view tied down large forces in immobile proximity to the enemy's defences; resulted in heavy losses, and assisted in keeping tactical necessities in the foreground, while the possibilities of strategical manoeuvre were correspondingly reduced. It is, of course, true that the training of the newly-raised formations, and their staffs, might not have been equal to the demands of more mobile operations for a considerable period.

The conclusions drawn from these observations may be summarised as follows:

(*a*) The size of the forces enabled both sides in the West to present a continuous front, with flanks which could not be enveloped.

(*b*) Non-acceptance of the "War as a whole" theory and lack of a proper organization for Higher Direction, precluded any adequate and properly co-ordinated attempt to widen the field of strategy and to seek for a solution of the stalemate in a subsidiary theatre of operations.

(*c*) The importance attached to the possession of ground on the Western Front, and the standard of training in the new formations, militated against the possibilities of a restoration of more open warfare, which would have offered greater opportunities for strategic as opposed to predominantly tactical efforts.

These three factors limited the first phase of any future strategy in France to an effort at penetration in which, in turn, the first essential would be tactical success. But penetration is just as legitimate a form of strategy as envelopment, though admittedly more difficult of tactical achievement particularly when time has enabled the enemy to organise his position for defence. Marlborough had faced a similar problem at the Lines of Brabant, though on a smaller scale.*

Moreover, it is hoped to show that though initial tactical penetration was dictated by the continuous front, the objects of the great battles of the years of stalemate were strategic, and were often, though to a varying degree, achieved in spite of apparent local failure in the tactical plan and of the size of the forces engaged.

It will also emerge that "tactical success and good strategical plans are bound up together"† and that, without a harmonious

*"Marlborough, His Life and Times." Winston Churchill. Vol. 11 Chap. XXV.

†"German Strategy in the Great War," Neame, P. 116.

balance between the two, results will almost inevitably be disappointing.

SEPTEMBER 1915

At this period of the War the main portion of French territory in German occupation formed an enormous salient having its apex in the vicinity of Noyon. The French High Command, dominated by the desire to evict the enemy from France, planned to break in the flanks of the salient and to envelop the German forces which held its apex, so producing a favourable situation for a general advance to the Frontier. The final plan was for Castelnau's army of 34 Infantry divisions to attack northwards in Champagne while d'Urbal, with 17 divisions, carried out a covering attack near Arras, with the British 9 divisions on his left directed on the Loos area.

Sir John French had drawn attention to the formidable strength of the German positions on his front which, in his opinion, called for far larger forces and much more heavy artillery if success were to be achieved, but the disasters which the Russian armies had experienced since the beginning of July, together with the effect of the Italian failure on the Isonzo and the British disappointment at Gallipoli, demanded energetic action in France if Russia were to be kept in the War. Local tactical difficulties were outweighed by this chain of considerations of grand strategy and the attacks in France were launched on the 25th September.

Strategical surprise was deliberately surrendered in return for what was hoped would prove adequate artillery preparation over a period of several days, but an attempt at tactical surprise was made by the first use of poison gas by the Allies. The basis of the infantry tactics was an advance by successive lines of men, so crowded as to be almost shoulder to shoulder. The outcome of the battle was a bitter tactical disappointment, for several days of severe fighting led, generally speaking, to no more than had been gained in the first few hours—portions of the enemy's first line of defences. The reasons for the failure of the plan, which are discussed fully in the British Official History, may be summarised as follows: —

(*a*) Lack of surprise.

(*b*) Shortage of heavy artillery and of shells of all natures, with the consequent failure of the artillery fire to destroy the German wire.

(*c*) The power of defensive machine gun fire.

(*d*) Partial failure of the gas attack owing to an unfavourable wind.

(*e*) Inadequate training of staff officers, officers and men.

(*f*) Delay in the exploitation of local successes by the use of reserves.

The Official History, however, goes on to remark—"the event had shown that it was possible, given some element of surprise, sufficient guns, ammunition and other appliances, and adequately trained troops, to break the enemy's front."* Of the strategic side Colonel Neame writes, "The great attacks in the West on the 25th September, 1915, tested the German army almost to the limit. All the general reserves on the West were absorbed on the first day, and the Third German Army on the Champagne front nearly commenced a general retreat. Divisions from Russia were absorbed as fast as they arrived."†

It is suggested that in this case tactical short-comings on the Allied side frustrated the achievement of the strategic aim, but the only influence exercised by the size of the forces was to compel resort to penetration. The Germans were finally saved from an important Allied success by their strategic ability to move reserves, in sufficient time, from east to west.

1916. *VERDUN AND THE SOMME*

Diverse as were the views of the wider strategic possibilities which existed for the Allies at the commencement of 1915, there appears to have been general agreement that, by 1916, those possibilities no longer existed and that the situation on the Western Front then dominated all else.

The German strategic aim for their 1916 campaign was based on a growing realization that the British were their most dangerous opponents. They therefore decided to strike at Britain's allies, in the hope that their destruction would induce her,—rendered single-handed—to abandon the struggle.

The German High Command therefore selected Verdun,—which the French, for many reasons, could be depended on to hold to the last, as a suitable objective for an offensive which was primarily designed to exhaust French manpower, and to force France to make peace. The Germans, by new tactical methods, hoped to keep their own losses at a minimum.

The German attacks commenced in February and by their new tactical policy of short but intensive artillery preparation, and the consolidation of limited objectives before the French reserves could intervene, steadily ate their way into the defences in spite of the most desperate and gallant conduct of the French.

*"Military Operations. France and Belgium. 1915." P. 399.
†"German Strategy in the Great War." Neame. P. 79.

To release additional French troops for the defence, the British front was extended, but neither this nor attempted diversions by the Italians on the Isonzo and by the Russians near Vilna, succeeded in stemming the relentless German advance, though in these efforts will be seen the attempts of Allied grand strategy to intervene. By early June, Forts Douamont and Vaux had fallen and later in the same month the successful employment of a new type of gas shell brought the Germans to the last outworks of the defences. A great victory for German tactics seemed at hand.

Yet on the 24th October Fort Douamont was recaptured by the French and Verdun continued to be held throughout the War.

Among the factors which contributed to this reversal of an apparently certain outcome it must first be mentioned that the Crown Prince introduced a modification of the tactics which were proving so successful and by increasing manpower in proportion to fire-power in an endeavour to accelerate progress on the ground, instead of maintaining the strategic objective of using up the French reserves, added considerably to the cost of the project in German casualties.

A more important influence was exercised by a renewed Russian offensive, in which Brusilov achieved a sensational, if transitory success. This, besides bringing Roumania into the War, compelled the Germans to despatch eight divisions from the Western Front to retrieve the Austrian armies from the chaos in which they had become submerged.

The decisive factor, however, was the Allied offensive on the Somme, where the completion of the necessary preparations and the opening of the artillery bombardment, on the 24th June, were the signal for the discontinuance of all movement of German reinforcements and artillery ammunition to Verdun.

The immediate strategic conception underlying the Allied attack was the penetration of the enemy's line under cover of an artillery bombardment of unparalleled intensity, followed by the rolling-up of the exposed flanks which penetration would disclose. The tactical results of the battle, which continued until the middle of November, were disappointing, and, in that the German defences were never penetrated, the immediate strategic object was not achieved. The tactical shortcomings of September 1915 again appeared in the provision of inadequate heavy artillery support, the surrender of tactical surprise in favour of prolonged artillery preparation; the over-crowding of the attacking infantry, and failure to exploit local success.

The British losses amounted to 420,000 men; those of the French 194,000 and those of the Germans 440,000. "The French agony at Verdun had compelled a British relieving counter-attack in France, before the new British Armies, and particularly their vastly expanded artillery, were sufficiently trained.*

Yet, in spite of the heavy losses—which are a measure of the size of the forces engaged—and of tactical, and therefore local strategic frustration on the Somme, Verdun and the French Army were saved and the main strategic object of the battle gained. Moreover, "Never again did the mass of German rank and file fight as they fought on the Somme."*

1917. *YPRES AND PASSCHENDAELE*

1917 is, above all, the year of which a superficial study, particularly of the operations on the Western Front alone, is likely to result in an impression that the size of the opposing forces rendered strategic objectives unattainable and subordinated all else to a merciless tactical process of attrition.

To obtain a more balanced perspective the immense political and economic repercussions, which the progress of the War had brought about in the different countries which formed the opposing groups, must be taken into account.

Of these factors it is only possible to mention the following:

(*a*) The growing possibility, and later the fact, of the Russian collapse.

(*b*) The manpower position in each country and the possible rate of American participation.

(*c*) The effects of the German submarine campaign on the Allied shipping situation, and

(*d*) The state of the national morale and the effects of war-weariness in certain countries, particularly France and Italy, and in the armed forces of those countries.

The German problem, less complicated than that of the Allies in that interior lines and the capacity of their strategic railways conferred on them freedom of choice as to the front on which they would operate, resulted in a defensive policy in the West while Russia was finally disposed of. In pursuance of this plan the Germans, in order to forestall an anticipated offensive by the Allies and to increase their reserves, effected a voluntary withdrawal to the Siegfried line and so straightened out their

*"The World Crisis, 1916—18." Winston Churchill. Pt. 1. Chapt. VII.

salient between Arras and Rheims. This strategic surprise, while displaying a true appreciation of the value of ground in proportion to other considerations, contributed in an important degree to the tragic failure of the Nivelle offensive in Champagne in April 1917, with its consequences of grave deterioration in the morale of certain French formations.

Nor would Ludendorff allow himself to be diverted from his strategic conception for the year, even when the capture of the Messines Ridge by the British, on the 7th June, caused the Germans grave anxiety.

On the 10th July the Germans again, by a correct appreciation of the local strategic factors, and by appropriate action in seizing the British bridgehead near the Sea, struck a shrewd anticipatory blow which removed one of the main hopes of the Passchendaele offensive which was launched on the 31st.

By October the Germans felt sufficiently secure in the West to provide six divisions for Northern Italy where, in conjunction with the Austrians, they achieved the strategic success of Caporetto, so nearly fatal to the existence of the Italian army which sustained a loss of some 600,000 men. This disaster dictated the diversion of Allied formations from France in order to stabilise the Italian front and so contributed to the eventual discontinuance of the Passchendaele offensive.

On the Allied side the year opened with serious disagreements on the subject of the High Command which undoubtedly hampered initiative.

The principal courses open to grand strategy in the West were:

(*a*) To continue pressure on the German army, a course which involved attacks on the strongest member of the enemy team in strongly organised defences and with a bare margin of superiority in manpower.

(*b*) To despatch forces and munitions to Italy with a view to striking a decisive blow at Austria, which was already putting out peace-feelers.

(*c*) To remain on the defensive while awaiting the arrival of important American forces.

In addition to arriving at a choice between these three main courses the Allied policy in regard to subsidiary theatres of operations had also to be determined. The situation at sea probably exercised a decisive influence in the decision which was arrived at for, at a critical moment in the deliberations, Jellicoe gave it

as his opinion that the capture of the enemy submarine bases on the Belgian coast was essential if the Allies were to retain sufficient shipping to enable them to continue the War for another year. This enforced the adoption of an offensive policy in the West which it was hoped would not only free the Belgian coast but would also constitute a sufficient drain on German manpower to relieve the pressure upon Russia.

In the event the year, for the Allies, proved one of keenest disappointment and of frightful losses. Vimy, Messines and Cambrai all showed that where surprise was present and efficient tactics practised, limited objectives could be attained without unduly heavy losses. At Cambrai the possibilities of far greater success were lost and even the greater portion of original gains were sacrificed owing to the absence of reserves. The main British offensive towards Passchendaele was launched on the 31st July after an artillery preparation in which $4\frac{1}{2}$ million shells were fired. It lasted until the 10th November. At the end of this period, when the British losses totalled 400,000 men, although Passchendaele was reached and taken, the Germans remained in possession of the Belgian ports and Russia meanwhile had collapsed to her doom.

In comparing these strategic disappointments with their terrible cost it seemed to many that, with the enormous masses of men which both sides had available, there was no future in the War except a ceaseless tactical struggle and many bitter criticisms of the conduct of the operations have been expressed. This paper will not enter into any controversy which those criticisms may have initiated, but, for the purpose of examining our dictum, it is desirable to remark that the continuance of the Passchendaele offensive was held to be essential, by those upon whom the responsibility lay, in order to give the French army time to recover from the effects of the Nivelle offensive.

In spite of strategic failure, a study of* different accounts of the fighting does not give the impression that it was the size of the forces which rendered tactics temporarily supreme. The tactical problem had certainly become more formidable, particularly as the new German "pill boxes" enabled machine gun nests to survive both artillery bombardment and tank attack. But the principal unfavourable influences appear to have been exercised on the attackers by the weather and by the fact that the incessant bombardments had destroyed the local land drainage system and this, together with the rain, turned the ground into a quagmire.

*N.B. The Official History of this period has not yet been published.

Whenever the weather was fine for a few days the British were able to carry out their attacks successfully, but the weather was unkind more often than not. In fact the tactics of the attack now showed themselves equal to the new tasks which the unforeseen conditions of the War had imposed and, as a final reflection on our dictum, the following may be quoted from the Official History which deals with a later period of the War,—"The Armies of the B.E.F. carried out successfully during 1917 several offensives *on as large a scale as the forces available permitted."**

1918. *THE LAST GERMAN ATTACKS*

Long before 1917 ended staff calculations were being made to compare the manpower situation as it would be in the opposing forces in 1918. The chief factors were,—the resources of France and Great Britain in comparison with the various demands for men, the release of German formations from the Russian front, and the estimated rate of arrival of American troops. These calculations showed that for a limited period in the earlier part of the coming year Germany, free for the first time since 1914 of serious pre-occupations on other fronts, would be in superior strength in the West. This superiority would, however, pass as soon as American participation began seriously to take effect.

In the event, Germany succeeded in massing no less than 186 divisions on the Western Front by March and a month later increased this total to 208 divisions. But the repeated Allied offensives during 1917 had so affected the morale of a large proportion of the German troops as to render them unfit to sustain a continued defensive role.

Thus on the German side, a final attempt to overthrow the Allies, before the Americans could effectually intervene, was clearly indicated.

Ludendorff's preparations for this 1918 offensive are of the greatest interest in their bearing on the subject of this paper. They were based on lessons deduced from a careful study of the earlier course of the War and, in particular, from the frustration of strategic aims in the Nivelle offensive by tactical failure. Ludendorff's conclusions emphasised the fact that, whereas in open warfare the strategic plan must first be developed before the tactical opportunity will arise, "in position warfare a tactical success, that is, a rupture of the front, is necessary first."† He therefore refrained from directing the attention of his subordinate

*"Military Operations. France and Belgium. 1918." P. 7.
"German Strategy in the Great War." Neame. P. 104.

leaders and staffs on dazzling but distant objectives and concentrated on perfecting the tactics to which he looked to produce his strategic openings. His main principles in this training were an insistence on the value of surprise; the direction of the strongest attacks where the enemy was weakest, and the immediate and independent exploitation of success by all formations, units and even sub-units,—each of which must be capable of fighting its own way forward.

Behind this thorough overhaul of German tactics, however, the dominating strategic idea must not be overlooked even though this remained, to a greater extent, perhaps, than hitherto, within the minds of the High Command alone. Lieutenant-Colonel Wetzell, Head of the Operations Section at O.H.L., feared principally the Allies' power of speedily switching reserves over the excellent lateral French railways. This flexibility in the defence had to be reckoned in comparison with the inevitable delays which growing distance from railheads and the difficulties of crossing a shot-to-pieces battle area must impose upon the attackers.

For these reasons the German strategic conception was a series of great attacks, each separate from and yet having a bearing on and a connection with the others, but none being carried beyond the point where the inevitable delays in the advance, and the intervention of the enemy's reserves, rendered further effort unduly expensive in casualties and so unprofitable. The main direction of the offensive was to be the junction of the French and British armies, where success would offer the possibility of separating the Allies and driving the British, whose destruction was to be the principal objective, back against the sea. At the same time the capture of Amiens would sever a vital link in the Allies' lateral rail communications. The rain and mud of Flanders and the difficult and hilly country in the south would, moreover, both be avoided, and the Allies would be attacked where their positions were weakest and where their reserves were least conveniently at hand.

Fortunately for the Allies, Lieutenant-Colonel Wetzell's governing proviso, that the Allies' reserves must be used up by subsidiary operations before the decisive offensive was launched, was not accepted by Ludendorff and, in searching for the reasons for the ultimate failure of the five great German attacks, which took place between the 21st March and the middle of July 1918, this strategic weakness in the German plan must be given a very important place.*

*See, "Military Operations. France and Belgium. 1918." P. 142.

Space does not allow any more detailed survey of the vast operations which took place, but it must be remarked that where surprise was effected, and in this connection the Germans on many occasions received most valuable assistance from fog or ground mist, it was amply proved that sound tactics rendered a break-through possible, in spite of the strength of defensive positions and the number of troops on the ground. It also emerged that, although there were occasions when tactical success apparently led the German High Command away from the maintenance of the strategical objective, it was the strategic mobility and the handling of the Allied reserves which proved the chief factor in defeating the German plan.

1918. *THE FINAL PHASE*

On the 18th July Foch launched the first great Allied counter-stroke between Soissons and Chateau Thierry and with its success the initiative passed finally to the Allies.

It is not necessary to go into the operations which took place between that date and the Armistice because it is a period of restored movement on which the opinion expressed in the dictum is not, it is felt, primarily based. It is moreover, a period in which powerful strategic influences other than those inside the actual theatres of operations were at work. The effect of contraband control on the stamina and morale of the German people, and the reactions of these on the German troops, is but one of many of such influences which almost preclude any brief consideration of the dictum in relation to the operations of the closing period of the War.

A study of that period will reveal many examples of the difficulties which are inseparable from the movement and maintenance of vast modern armies and the limiting effect which the capacity of the available communications must have on the size and flexibility of the forces which can be employed.

Before leaving the subject it is of interest to remark that in the first action of the Allied offensive the tactical success of the French attack brought the only broad gauge railway which served the Germans in their great Marne salient under artillery fire and this threat to their strategic artery forced the Germans to withdraw and so marked the turning of the tide.

CONCLUSION

This examination has been carried out with the Western Front in the Great War as its background because in that theatre the national manpower of the principal opposing Powers was

most thickly crowded on the ground, and it is believed that the dictum has been refused.

The organization and equipment of modern armies is tending to make them dependent on a proportionately larger industrial effort than ever before, while the development of modern air forces must also lead to a great demand for men in the factories and for anti-air defence, as well as in the ranks of the air forces themselves. These factors will reduce the proportion of any nation's manpower which will be available, in a future major war, for service in its army and so will tend to prevent any increase in the size of future armies in comparison with those of 1914—18. On the other hand, it is obvious from a consideration of the forces which already exist in Europe that, should another major war occur, immense armies would again take the field and that the problems of their movement and maintenance would again arise, together with the added complications which mechanization and the creation of armoured mobile forces have produced. The progress and expansion of air forces will also provide strategy with fresh problems.

An efficient organization for the Higher Direction of War will do much to clarify the issue in the field of grand strategy and thus ensure a true economy in the use of a nation's resources and general war effort.

In land operations as always in the history of war, there will be needed a due balance between strategy and tactics. Faulty strategy must obviously be in danger of imposing an impossible burden on tactics, while inadequate tactics will remain able to deprive good strategy of its full rewards and even to frustrate the achievement of its aims.

The exercise of strategy demands power of movement, which is only possible within the capacity of the means of communication and maintenance available. But although this has a limiting influence upon the size of the forces which can be employed in any given theatre of operations, it is not a factor which exercised a determining influence in 1914—18 in France and Belgium. It cannot be upheld that, where strategy failed to achieve even its immediate aims on the Western Front, it was because the size of the armies rendered strategy wholly subordinate to tactics. Nor, it is contended, will this be the case in future.

THE AMATEUR SOLDIER

By Lieut.-Colonel A. A. Phillips, v.d.

Excluding games, there are few professions which both attract and welcome the amateur. The amateur doctor, for instance, finds no welcome at the hands of those whom he would make his colleagues; on the contrary, they smash his pretensions with the heavy hand of the law. Likewise, the law itself excludes the amateur from its courts with no less rigour than banks exclude amateurs from their cash offices. The would-be amateur of such professions, therefore, finding the sacred portals of their temples banged in his intrusive face, can at best only hope to establish some bubble reputation in the local public house; never can he aspire to the rank and dignity of a Doctor of Medicine or King's Counsellor.

By a fortunate chance, however, a more liberal attitude to the amateur is shown by those two professions which exercise the strongest fascination upon him—I allude to the professions of engine-driver and soldier. It is true that the former is somewhat exclusive. Only if he is a king can the amateur engine-driver hope to attain his supreme ambition of hazarding the lives of his loyal subjects. All loyal subjects, however, are permitted, nay encouraged, to hazard their lives as amateur soldiers, and are gladly initiated into the mysteries of the craft by their professional brethren.

It is not difficult to see why the amateur soldier is encouraged. The government of the country, at comparatively small expense, obtains a large force of soldiers, not indeed of the same standard as the regulars, but certainly with a sound grounding in military science and discipline. In the event of war, a large proportion of these amateurs can reach the regular standard much more rapidly than the unmartial citizen who starts from scratch. Also, the fact that these amateur soldiers are scattered widely over the country, instead of being concentrated in garrison towns, gives the government some security against internal disturbances or even, in some countries, against sudden attacks from outside, by land, sea or air.

It is not, however, equally obvious what is the attraction to the individual of voluntary military service. Certainly the pay

is not the primary attraction. Neither in the Officers Training Corps in England nor in the Indian Volunteer Force did I draw any pay. In the Auxiliary Force, after paying my mess bill and subscriptions and providing cups for rifle meetings, I am lucky if I clear Rs. 200 *per annum*. A private in my battalion sees Rs. 32 per year. In either case the amount is hardly sufficient to jeopardise an amateur status. Call it if you will a tip, a graceful recognition of services rendered. It is certainly welcomed, but the majority of us would still be amateur soldiers even if we received nothing.

What about perquisites? The men of the Auxiliary Force receive a free arms license, but this privilege, for some reason, is not extended to officers. Until a few years ago, officers and men were exempted from all taxation on their motor cars. This was a very valuable privilege, particularly to the men, many of whom owned cars and motor cycles, and its restriction to a few special cases has caused a great deal of grumbling. Now it is an undoubted fact that every man dearly loves a privilege in its strict sense—a *private law* singling him out from his fellows. The intrinsic value may be little or nothing; it is the distinction which counts. Therefore, if I may venture to offer advice to the powers that be, it is this: if they want to encourage a volunteer force, they need not worry over much about pay. That is a matter which concerns more the regular soldier, whose livelihood is derived from his profession. Instead, let them look round for a few small privileges, which need not cost much, and confer these upon the amateur. They will make him feel that his efforts are appreciated and will have a marked effect on recruitment.

Apart from direct perquisites, we should also take into consideration the holiday and social aspects of an amateur force. To the British Territorial soldier the holiday side of his camp is undoubtedly a great attraction. Living, as he largely does, in big towns, a fortnight in the country or at the seaside with no expense and all arrangements made for him is extremely good value. In India, the appeal is hardly so great, for towns are with few exceptions more spacious and we normally live a more open-air life. At the same time, if a camp can be arranged at the seaside or in the hills in summer, it has a very good effect on the attendance. The social side of the camp, the renewal of old friendships and the making of new ones, the fun and games in the various messes,

the concerts, sports and field games are all of value as an attraction. Likewise, throughout the year, anything that can be done to bring the men together, such as rifle meetings, dances and team games, should be encouraged to make the service more attractive.

But, after all, these are merely adjuncts to amateur soldiering. What we want to discover is why soldiering in itself, with its hard work, discomfort and drudgery, attracts the amateur. It seems anomalous, but I think that the main attraction lies in this very hard work, discomfort and drudgery. We Britons are accused of taking our pleasures sadly. This means that any rightly constituted Briton will undergo an immense amount of hard work and discomfort for the sake of the glow of achievement which follows. Look at the climber, exhausted and risking his neck; the rugger player inspecting his cuts and bruises; the fisherman squelching homewards soaked and cold. And so with the amateur soldier. During his training he will sweat and grouse and limp exhausted back to camp, but at the end of it all he will fling himself back in his chair and say: "Well, that was a grand camp." And for years afterwards, the mighty march in 1930 or that awful trench digging in 1933 will crop up in conversation—and, if there are present mere civilians who can't endure such heroic hardships, well, so much the better. The moral of this is: don't coddle your amateur soldier. Don't expect him to do all that a regular can, but set him a high standard and work him to the limit of his capacity. Then he will feel that he has been found worthy and has achieved something worth achieving.

Another attraction to the right man is the discipline. There is a strange fascination in orderliness and rhythm which appeals alike to the amateur soldier and the amateur engine-driver. We cannot all be drivers, but, if we can believe Kipling's "The Ship that Found Herself," every part of the machine can take pride in its ordered work. So also we cannot all be officers. To the officer the pleasure of responsibility, of directing orderly masses on parade and in the field, the danger of a mistake that will not so much make him feel a fool as make him feel that he has let down his men. But those of us who have done our turn in the ranks know well also the thrill of pride that the keen private gets from his instant obedience, his perfect turn-out, his snap and smartness. The brave uniforms of the past have gone; the glamour of soldiering remains.

At this point I hesitate, for I cannot proceed without mentioning certain subjects which generally we prefer not to parade. But my picture of the amateur soldier will be incomplete without them. With apology, therefore, I continue.

So far I have dealt only with the attractions of soldiering for the amateur. There are, however, two incentives which tend to drive him into it. The first is loyalty and the second duty. The proportion of genuinely loyal Britons is probably higher in India than in Britain itself. In addition to being loyal subjects many are also actually servants of the Crown. In the Civil Services, there is not, however, the same atmosphere of personal loyalty to the Throne as in the Fighting Services. Civil Servants call themselves *Government* servants, and rarely focus their eyes beyond the Secretary of State. They do not generally acknowledge it even to themselves; but the fact remains that to many of them, Government servants and others, the joining of the Auxiliary Force is an expression of loyalty to His Majesty. And they are proud to hold his commission and to wear his uniform.

As for duty, it is of three kinds—to ourselves, to our families, and to our country. Every right-minded man in all ages has regarded it as his duty to himself to be able to protect himself when necessary. Some stop at the ordinarily accepted meaning of the noble art of self-defence; others go further and feel it their duty to be able to protect themselves from armed attack. Such are the amateur soldiers.

Again, many of us feel it our duty to be prepared personally to defend our families and homes. In Britain, with the increasing menace of air raids and the delegation of air defence and coastal defence to the Territorial army, this feeling is growing stronger daily, and is reflected in the recruiting returns of the Territorials.

Lastly, what of duty to our country? It is not an expression that we like or use. We put it much more neatly—"doing our bit." That is all it amounts to. We amateur soldiers are not content to sit back and let others do all the hard work of defending us, our families, our homes, our country and our empire. We feel that we also ought to do our bit.

So much for the amateur soldier. My endeavour has been to give an insight into his feelings and inspirations and to give

this insight particularly to his professional brother. May I conclude with a personal note to the regular? You regular soldiers are not only our brothers, but very definitely our *big* brothers and your attitude and advice makes more difference to us than many of you know. The influence of our regular permanent staff spreads far beyond the parade-ground and rifle-range. Remember that, and send us men whom we can look up to and who will be a credit to yourselves.

There is one way, too, in which every one of you, officers and men, can help us, and that is by fighting actively against the dreadful inferiority complex that some of us have—"Oh well, after all, we're only playing at soldiers, so what does it matter?" I resent that attitude and I consider it fatal if it spreads through a unit. I do not play at soldiers: I am one—an amateur, yes, but none-the-less a soldier, with a certain amount of knowledge of my job, a certain amount of experience and a certain definite worth. I have as much right to be called a soldier as Lord Tennyson has to be called a cricketer; and every other officer and man in the Auxiliary Force has the same right. They may be good soldiers or bad soldiers, and they are all amateurs (though many are *ex* professionals) but they are all very definitely soldiers. Yet many of them are ashamed to claim this title and thereby destroy their own morale and that of their comrades. They lack confidence in themselves and are afraid of ridicule. It is not your fault. I give you full marks for your attitude to us. All through my service, both officially and privately I have found you regular soldiers ready to welcome the amateur as one of the family, to help him in every way, and even to admire him for the show that he puts up and the discomforts that he voluntarily endures. But that is not enough. I ask for your active assistance. Whenever you meet the amateur, on duty or off duty, let him know at once if he shows an inferiority complex, help him to keep his tail up, and rub it into him good and hearty that he is "an important and integral part of the armed forces in India," that he is a soldier.

One thing more. When you inspect us, don't imagine that criticism will destroy our keenness and that flattery is essential. When we are very young soldiers we may feel complacent when the inspecting officer tells us what marvellous fellows we are; but we get tired of it when we hear it year after year. We have a fairly shrewd idea of how good or how bad we are, and if an

inspecting officer does not spot, or is too polite to mention, our bad points, we do not attach much value to his opinion of our good ones. So do be honest with us, and be sure that we shall appreciate the pointing out of our weaknesses and advice on how to improve them. We are not discouraged by healthy criticism. And don't think, though I fear that I may have given you that impression, that we always and all the time take ourselves dreadfully seriously. I can assure you that we get a lot of fun out of ourselves and are not averse to sharing the joke with a sympathetic big brother.

And now to end with a tale of an inspecting officer who could not tell a lie. I once found myself on a brigade field day in command of a detachment of a unit which had fallen upon hard times; so much so, that locally, almost every member had resigned except a few old stalwarts whom nothing and no one could shake from their loyalty to their unit. At the end of the day, the district commander, who was inspecting, ordered my detachment to perform a certain manœuvre. They did it, chiefly on account of their great age, badly, damned badly. The general, an Irishman of nimble thought, knew it, I knew it, the men knew it. He called me up, and, after a few remarks on tactics concluded, " and tell the men"—(*"usual thing," I thought, "delighted to see them so keen and efficient"*) "er, tell the men"—(*hullo! an honest man with qualms of conscience"*) "er, h—m, yes, tell them" —(*"completely stumped: wonder what he can say"*)—"Yes, yes! Tell them they're full of heart, full of heart"! ! *Le mot juste*! For after all, if the amateur soldier is full of heart, that is the great thing.

STRATEGIC ROADS AND MECHANICAL TRANSPORT IN THE DEFENCE OF INDIA

By Major C. McI. Delf

There are many signs that in Europe and America roads designed for modern motor traffic are at last being given the attention and importance they deserve. Germany has led the way and it is generally agreed that her *autobahnen* have a military as well as a civil significance; this in spite of the fact that Germany possesses a magnificent railway system with which almost incredible feats of transportation were performed during the Great War. The United States, another country with a fine railway system, does not rely on it to the exclusion of the road for the moving of troops over long distances, witness the recent move of an American mechanised division, reported in *The Times* of November 15th, 1937. That division consisted of 9,200 officers and men, 1,108 vehicles and over 1,000 tons of equipment. It left camp in Texas at 6 a.m. and thirteen hours later entered San Antonio, having covered a distance of three hundred and twenty-six miles. The whole march, including halts, had been carried out at an average speed of twenty-five miles an hour. The still more recent march of German motorised divisions on Vienna is another example of a strategic move by road where a good railway system was, nevertheless, available.

As mechanization increases, it is suggested that the tendency will be to use road transport for anything but the widest movements rather than go through the orthodox procedure of movement from base by rail to railhead and thence by road. Apart from the disorganization and delay due to entraining and detraining there is always the danger of air attack to consider. The author of the Gold Medal Essay of the Royal United Service Institution in 1936, himself an airman, stressed the point when he wrote: "It is an obvious truism that the nearer a railway system is worked to its maximum capacity, the more serious would be the cumulative effect of air interference: and the far more extended use of motor transport that is practicable to-day will undoubtedly afford a much greater margin of safety between the minimum essential and the maximum possible use of the railway in war, to allow for and alleviate the effects of air interference with the working of the system," and again, "the outcome of that policy"—mechanization—"will be to minimise the effects of air action on a modern

scale against supply and communications, firstly, by reducing to within reasonable limits the quantity of war material essential to the conduct of active operations, and secondly, by increasing the flexibility of our transportation system—and thereby its margin of safety against interference."

Again we find a distinguished military writer* affirming, in the April 1938 number of the *Army Quarterly*, that "Modern war is, in fact, mainly a matter of transportation facilities. Strategy is dependent upon what the railways and motor roads can offer."

Let us now examine India's roads, particularly those in the north-west from this point of view. We find that whereas there is an elaborate network of strategic railways, many of them of more than doubtful commercial value, penetrating Baluchistan and the North-West Frontier Province, good motor roads are comparatively few. There is admittedly the Grand Trunk Road running to Peshawar with its extension up the Khyber Pass to the Afghan border. There is also the frontier road over the Kohat pass to Dera Ismail Khan which is linked up with the excellent Waziristan road system. But to drive a car to Quetta from either the Punjab or Sind is still considered a feat to be talked about and even to be written up in newspapers. The railway remains the normal means of getting supplies and troops to the advanced bases on the Frontier.

In certain cases, such as Waziristan, this involves a break of gauge with, in consequence, much delay and damage. It is particularly in a case of this nature, where the commitments are known, that the building of a new road as a substitute for the narrow gauge railway offers interesting possibilities.

Let us assume that, in place of the present narrow gauge railway between Mari Indus and Bannu, there is a first-class motor road built on the alignment of the railway. There is no reason why, on such a road, the standard heavy lorry used at home and in Europe should not be run. This lorry carries five tons and can tow a three-ton trailer. It is usually powered with a Diesel engine. Taking a maximum war-time lift into Waziristan of two hundred tons per day, twenty-five such outfits would be required on the road each day. Allowing an average of 25 m.p.h. for the convoy, it would reach Mir Ali four and a half hours after leaving Mari Indus. This compares very favourably with the seven and a half hours which the train takes to reach Bannu, the run to which is shorter by twenty-three miles. It will be noted that Mir Ali is

*"Ludendorff" by Archimedes.

chosen as the road-head and advanced base to which bulk supplies are taken. There are many advantages, both strategical and administrative, in so doing, the chief administrative gain being that of breaking bulk twenty-three miles further forward. It will be seen that, if the situation demanded it, the vehicles would be able to return empty the same day but normally the service would be kept up by two mechanical transport sections.

Petrol would be delivered in bulk in eight hundred or one thousand gallon tank lorries. The lighter lorries already in the service would operate forward of Mir Ali over the network of roads now under construction in Waziristan. The cost per ton mile of freight carried in this way would be but a fraction of the cost with the type of road vehicle in use at present.

It may be objected that such a road, carrying abnormally heavy vehicles, is non-standard to India. It is felt however, that it is only a question of a few years before the general standard of Indian roads is raised very considerably and that this road would merely be a fore-runner from which, incidentally, much valuable experience would be obtained. The larger capacity vehicles, which are so much more economical from the ton-mile point of view, would then become the rule rather than the exception. Incidentally, these vehicles are more suited for Diesel engine propulsion than are the smaller ones.

It is quite likely that, for reasons of policy, it is not desirable to introduce such heavy vehicles into the service at present. In that case it is suggested that the lorry of three-ton capacity, as now used by a well-known contractor all over Waziristan, is capable of replacing the present narrow gauge railway with a far more flexible means of transport. The advantage of such a pool of transport, available for duty elsewhere, is well worth weighing in the balance when comparative costs are worked out.

Finally we have the possibilities of the road train. This consists of a five-ton tractor towing three or four trailers each carrying five tons or so. Such a unit was tried out on the Frontier in 1931 but owing to steering difficulties was a failure. The Overseas Mechanical Transport Committee in England then got down to the problem and produced a train, driven by a Diesel engine, which steered perfectly and successfully traversed difficult terrain on a south to north run in Australia, and also in Nigeria. Examples are now at work in both countries. Outfits of this type are primarily designed to replace branch railway lines which it is desired to close down, or as an alternative to building new ones.

It will thus be evident that there are several ways by which narrow gauge railways can be replaced by road transport. Each case must, of course, be examined on its merits but when the advantages and disadvantages are weighed up for an area such as Waziristan, not the least important aspect will be found to be the impetus to trade given by new roads. Increasing trade will raise the tribesman's standard of living and offers the best hope of permanent settlement with him. The roads designed to enable our troops to get to grips with him may ultimately render troop movements unnecessary. One of the most noteworthy features of the recent campaign was the activity which friendly tribes showed in operating mechanical transport on our behalf.

For some years to come the broad gauge line must be the main line of communication for troops operating on a large scale, if only because it is the most economical way of transporting bulk supplies where there is no change of guage. But, in these days of attack from the air, it is most important that every line should be duplicated by a first-class road. Railways in general and railway bridges in particular are sure to be singled out for attack from the air. A few minutes thought shows how much more vulnerable is the railway than the road. A convoy of lorries can, in most areas, scatter and very often each vehicle can get under a tree. A bomb dropped in the centre of the road in front of the leading lorry merely causes a more or less awkward dètour. A bomb dropped on a rail track under similar conditions holds up a train and leaves it at the mercy of following aircraft. If a bridge is hit the railway line is out of action until the bridge is repaired but, even when a road bridge is totally destroyed, there are very few places where temporary arrangements, such as diversions or bridges, cannot be rapidly constructed. At river crossings of the first importance, as at Attock, there are usually already in existence tracks to near river level, relics of a former boat or low level bridge. It is obvious that the flow of road transport is going to be kept up much more easily under aerial attack than is railway traffic.

Just as in the case of narrow gauge substitution there is much to be said for the first-class modern road capable of carrying five-ton lorries, so the same argument applies here. Any road programme must be drawn up with the future in view. It is a wise and economical precaution to design and plan roads now which will be up to the traffic they will have to carry, say, ten or fifteen years hence. In this connection it can be truly said of almost any part of India, that the military requirement of to-day will be the commercial necessity of the future. This does not mean that

railways will be superseded any more than they are likely to be in England. Rather will it mean a re-adjustment of the balance between rail and road so that each form of transport can serve the community in the most economical way.

One of the bug-bears of motoring in India is the way the animal drawn vehicle, which rarely obeys any rules of the road, impedes faster traffic. It is absurd to mix on the same highway traffic travelling at from 35 to 60 m.p.h. with the ambling bullock cart of a former era. The time has surely come when animal traffic, at least in areas of military importance, even though it still preponderates, should be confined to its own service roads alongside the main road. On the new German motor roads animal traffic is forbidden, as a result accidents are reported to be reduced by eighty per cent. Similar action is now being taken in England and although motor traffic in India is nothing like so dense, it is increasing; and accidents will also increase unless the necessary action is taken now.

The ideal road would have dual carriage ways on the lines of the German *Autobahn*. This would probably be too much for India's purse; but one of the German 25-foot wide concrete roads, with asphalted edges, sunk curbs, and minimum camber would be a vast improvement on the present design of road which, with its inadequate, hard strip of asphalted macadam, flanked on each side with eight or ten feet of dusty or mud-soaked berm, according to season, is the sort of compromise which satisfies no one and leads to totally unnecessary accidents. Alongside this road would be the service or animal traffic road which, in certain districts, at some future date, could form the basis of the second carriage way thus introducing the ideal of one way traffic.

Before leaving the subject of mixed traffic one is tempted to quote G. L. Steer on the roads of Addis Ababa before the Italian occupation. "In Addis the streets were only asphalted in the middle: there was a rough area on both sides for mules and beyond that, above the gutters, were the pavements for pedestrians. But there was one flaw in this neat lay-out. The pavements had never been asphalted or even levelled smooth. So the pedestrians took the centre of the road, the cars were forced into the area reserved for mules and the mules had to pick their way along the pavements." Is India so different?

Given the road, the most economical type of transport will ultimately appear upon it as long as licensing is wisely applied. To begin with, the existing civilian lorry of three to four-ton carrying capacity and powered with a petrol engine developing

from 70 to 85 H.P. would be used. This is the same as the three-ton lorry mentioned in the first part of this article and widely used in Waziristan. Eventually this will probably be superseded by the larger diesel-engined vehicle. It will thus be unnecessary for the army to maintain several lines of communication and numerous mechanical transport units to peace. One or two should suffice. The money would be better spent on road development, leaving it to commercial enterprise to produce the vehicles, which would be registered for impressment in an emergency.

In India, as elsewhere, the fully mechanized force is rapidly becoming a reality. Such a force would be robbed of half its value without a good road system. No doubt its component vehicles would have a good cross-country performance, but they would do better still on good roads and, in fact, a mechanized force should have no difficulty in repeating and improving upon the performance of the American division already mentioned, 326 miles in the day—given the roads. The effect on the numerical strength and distribution of the Defence Forces in India which would follow the possession of such mobility cannot be gone into here but would undoubtedly be great. Resulting economies can be foreseen to pay for the roads. Even on the North-West Frontier considerable changes can be envisaged.

This brings one to the important question of troop transport. In the 1937 Waziristan campaign much use was made of mechanical transport to move troops and their first-line animals. Another big feature of the campaign was the extent to which motor roads were driven through country hitherto inaccessible to any form of transport but the pack-mule. Frontier troops were able to reach many areas where they were required in a matter of hours whereas formerly it took days. The tribesman's strong suit, his mobility, was countered by the motor lorry and the motor road. No special passenger-carrying vehicles being available, the ordinary supply vehicles had to be used. These were not very satisfactory. The stowage of kits and arms is difficult; full use cannot be made of the chassis; while the men travel in considerable discomfort which on hill roads often leads to physical sickness. Also, embussing and de-bussing has to be done from the back. Under these conditions a unit is very unlikely to do itself justice if attacked on the move or required in action immediately after arrival at its destination.

It is understood that a re-design of the standard body is now under consideration. It is suggested that this body should be primarily for passenger transport with easily detachable seats so

that it can be rapidly converted for goods transport. The main design might well follow that of the civilian bus body, with a substantial roof and plenty of side doors for rapid loading and unloading. The fixed roof could carry kits while underneath it rifles and equipment could be clipped in readily accessible positions. The frames of the seats, all facing forward, could be of the modern light tubular metal work; while the seats themselves could be of cane.

The size of this vehicle is most important. The more troops that can be comfortably carried per vehicle the shorter will be the column. This is particularly important from two points of view, attack from the air and road space. On the other hand the chassis must be capable of working on the ordinary hill road. Availability from civilian sources in an emergency is also a big consideration. Evidently a compromise is necessary. The one suggested is a 28—30 seater, a size of body which can be easily mounted on the type of contractor's chassis in use in Waziristan. A number of contractors actually produced passenger-carrying vehicles of this type which were hastily converted for the carriage of goods. These had no difficulty in traversing the same routes as Service vehicles, reaching the foremost camps such as Asmanmanza. The writer had the opportunity of operating a vehicle of this type, during the 1937 Waziristan campaign, in competition with normal Service vehicles. It had no difficulty in carrying loads of three tons over newly built hill roads and proved an exceptionally useful and reliable vehicle. With regard to their availability in an emergency there is a distinct tendency for the commercial operator, at any rate in northern India, to go for this type, which, for a very small increase in running expenses, gives him an extra eight or nine seats for his pay load over the old 18—22 seaters, which correspond to the military 30-cwt. lorry. It is true that certain hill roads are banned to such vehicles, but if these roads are ever likely to have a military significance, there would appear to be a case for bringing pressure to bear upon the appropriate authorities to improve them. The hill roads of the North-West Frontier Province point the way. In the meantime there would have to be a few of the smaller vehicles available for service use. But this number should be kept to a minimum, for the reasons already given, and because the more they are used the more drivers, maintenance personnel and fuel are required. The word 'tail' of course, is usually given a comprehensive meaning which includes these factors.

The Italians were faced with most of these problems during the recent war in Abyssinia. The Italian Military Attaché in London, at a recent lecture in the Royal United Services Institution, stated that one of the important lessons learnt in that campaign was that motor transport types for the supply service (including passenger carrying) could be reduced to three: a special type capable of travelling at a limited speed along paths and cart tracks in the immediate vicinity of the troops; a light motor lorry of medium capacity and high speed capable of carrying at least 38 cwt. on hilly roads; and a larger vehicle capable of carrying at least 95 cwt. on hilly roads.

A more mountainous and roadless country to operate in than Abyssinia would be difficult to find; yet, even so, it is obvious that the Italians kept the size of the bulk of their vehicles to the maximum dimensions permissible. Let us for a moment consider the various categories. The vehicles in the first class were evidently used for the partial replacement of mules in first-line transport. Those in the second correspond roughly to the type now being advocated for troop transport. It should be remembered that a vehicle which can comfortably carry three tons on good roads would normally be loaded with only two tons on the more severe type of hill road. The third class correspond to the larger type of vehicle which, for economical and other reasons, has already been advocated for lines of communication work either in replacement of railways or to supplement them. This is the type particularly suitable for diesel engines.

Before leaving the subject of the Military Attaché's lecture it is worth noting that he stressed the extent to which animals were transported by motor transport. "The transportation of animals by motor became a normal procedure and gave excellent results." In Waziristan, in 1937, increasing use was made of lorries for this purpose. The vehicle used, the 3-ton medium six-wheeler, is not very suitable owing to its high loading platform. Better results would no doubt be obtained with suitably adapted bodies on the suggested 30-seater, passenger carrying, four-wheeled chassis. In this campaign cattle were successfully transported in contractors' lorries of this type.

As already suggested, if full advantage is to be taken in India of the mobility offered by modern mechanization, road development must occur. In this connection let us consider the case of Rawalpindi as a base for operations in Waziristan. At present, the only all-weather road route from Rawalpindi to Bannu is through Peshawar and over the Kohat Pass. There is a direct

route to Kohat which saves forty miles but thirty miles of this road are *katcha* and there are several unbridged nullahs. The route is an easy one apart from the Indus crossing which, of course, is also the chief obstacle on the Peshawar route.

Let us consider what could be done if the direct road Rawalpindi-Kohat-Bannu were modernized and a fleet of 30-seater lorries, plus animal carrying vehicles, were available, sufficient to transport an infantry brigade with its tactical animals. Allowing for short halts, this brigade would have no difficulty in averaging twenty-five miles an hour. This means it could be in Bannu within eight hours of leaving Rawalpindi. Further a battalion, or for that matter the whole brigade, could, after a meal in Bannu, continue to any position in central Waziristan on the same day, if the situation demanded it and road protection were available. Space does not permit the repercussions of such mobility to be examined in detail. It is suggested that the moral effect on the tribesman would be considerable. But for his extreme mobility compared with that of our forces he would probably have ceased to be a problem already. Then the fact that help could be summoned so quickly might permit skeleton garrisons on the Frontier, leaving more troops to enjoy the amenities of stations such as Rawalpindi. There would appear to be no reason why, under certain conditions, the advanced guard of such a force should not go by air leaving the main body to come on by road. Then again, our hypothetical mobile brigade, based on Rawalpindi, would be available for equally rapid moves in other directions, its scope depending on the quality of the Punjab roads. This should lead to further economies in outlying garrisons.

Such road development would, of course, lead to serious competition with the State-owned railways. In certain cases, unremunerative branch lines, especially narrow gauge ones, would have to close down. The Wedgwood Committee has advised this and has also suggested that the railways should run their own road services. English railways find their road transport interests a very profitable investment. A whole-hearted policy of road development in India would not necessarily conflict with the ultimate interest of Indian railways as they would be freed from the burden of many unsatisfactory branch lines.

Northern India has to rely to a large extent on Bengal coal as its source of power. Hydro-electric schemes may alter this in due course, but, in the meantime, the situation would be serious if coal supplies were cut off from Northern India either by air attack or internal troubles. Oil, on the other hand, is produced in the Punjab in sufficient quantity to supply a large proportion

of the mechanical road transport in use in that area. Future developments might easily produce a surplus, even allowing for the greatly increased use of road transport. A re-adjustment of the balance between road and rail would tend to make the most important part of India more self-contained from the point of view of defence.

There is a case for reconsidering the balance between road and rail transport in war. The strategic road will play an increasing part in the defence of India. Better roads in general will confer greater mobility on the mechanised forces of the future. Events in other countries, particularly the Italian campaign in Abyssinia, lead to this conclusion. Much will depend on the way the money available is divided between road construction and the vehicles themselves. A liberal policy in regard to road development and the encouragement of civil interests to operate the type of vehicle required by the army in war will do much to lessen the necessity for maintaining large numbers of supply and troop-carrying vehicles in peace.

It is difficult to make the small vehicle pay commercially. Therefore the Services should, as far as possible run the type of vehicle which does pay. Roads should be designed to that end. Public opinion will eventually insist on this being done.

The danger of attack from the air is a real one and must be taken into consideration in deciding the relative merits of railway and road. In the future, it will be the rule rather than the exception, under active service conditions, to move troops over anything up to five hundred miles by road. Rapid means of road development, using modern machinery, will be a necessary part of any self-contained force.

In his new book on the Abyssinian War, Marshal Badoglio emphasises the use he made of mechanical transport. "I sent for the Quartermaster-General and directed him to be in readiness to organise a great transport column of over a thousand lorries with which I counted on finishing the war at no distant date in Addis Ababa." That was in March, when he was only just over the Abyssinian frontier. But his optimism was justified; in May, two months later, a column of seventeen hundred and twenty-five vehicles entered the capital and the war was won. Granted that, he met with little opposition once the main Abyssinian forces were scattered, still, it is suggested that the lesson to be learnt is the value of mechanised mobility for bringing a campaign to a rapid and successful conclusion, even when the country, at first sight, appears most unsuitable for a mechanised force.

THE QUASHING OR NON-CONFIRMATION OF A COURT-MARTIAL

By Brigadier L. M. Peet

Sometimes one hears a statement, and not always by junior officers, implying that trials by court-martial are quashed for inadequate reasons, thereby endangering not only the discipline of the speaker's unit, but of the Service as a whole. I have even been solemnly assured by a young officer that he knew for a fact that a trial had been quashed because the president had not crossed his "t's" or numbered the pages of the proceedings correctly. It is a fallacy to imagine that a court-martial is quashed without adequate reason, and, in fact, the proceedings of court-martial are reviewed in the same manner as the Court of Criminal Appeal or the High Court examine the proceedings of civil trials sent up to them, and are quashed or partially quashed for the same reasons. The only difference is that the Court of Criminal Appeal and the High Court do not see all civil trials, whereas all courts-martial are, as a matter of routine, reviewed several times. While no court-martial escapes review, many civil trials do, and the proportion of courts-martial quashed is probably greater as a natural consequence, but it in no way follows that courts-martial are worse managed than civil trials; and from the comments in England on the lower civil courts at least, it is fairly clear that trials by court-martial will bear favourable comparison with trials by civil court.

A conviction by court-martial has no effect until it has been duly confirmed, and a certain number of trials are not confirmed wholly or in part. Cases do occur, where, had a trial been confirmed, it could have been upheld, but something has occurred which leads a confirming officer to think that it would be fairer to an accused not to confirm the trial in question. In all cases of non-confirmation it would be legal to re-try the accused before another court, but in practice this is very seldom done, and never if it is the fault of the prosecution in failing to produce sufficient evidence, or in preferring a bad charge.

Since opinions are expressed as to inadequate reasons for the quashing or non-confirmation of trials by court-martial it may be useful to quote actual cases, which have occurred during the last thirty years or so, showing the errors necessitating the action taken, with an occasional example showing where quashing has

not been necessary even where mistakes have occurred. It should not be forgotten that it is often in the interest of the members of a court-martial that a trial be quashed, since, if a court had no jurisdiction, and any punishment were to be inflicted through a sentence awarded by such a court, not only would the members and the confirming officer be liable to an action for damages, but also to trial by court-martial or civil court. To put the matter at its worst, if an illegal death sentence were inflicted, the persons responsible might be tried for murder. A glance at Chapter VIII of the Manual of Military Law, or Chapter IX of the Manual of Air Force Law will show that punishments varying from £1,000 damages to death have been inflicted on officers for the use of improper or excessive jurisdiction. Incidentally, a commanding officer, company commander or other officer who exceeds his jurisdiction is equally liable to actions for damages or trial.

The examples given below have been arranged as far as possible in order of the procedure at a trial by court-martial. Some of the cases quoted are almost incredible, and could hardly occur again, but they illustrate matters to be examined by officers sitting on courts-martial and should also be useful to officers working for examinations in military or air force law. It will be noticed that some cases could be put under two or three headings.

Illegal Courts

A court may be illegal because it has been convened by a person without authority, or because the convening order is illegal, or because the members assembling were not detailed in the order.

Warrants

For trials by general or district court-martial a warrant is required to be issued by the proper authority. Both the Manuals of Military and Air Force Law state* that a court cannot enquire whether or not the convening officer has a warrant. This may be good advice in England, but is not so in India or Burma and, personally, I should have no hesitation in making this enquiry if detailed to appear on a court by an authority about whom I had any doubt. It is most unlikely that a court in England would ever be convened by a person not holding a warrant, but in India such cases have occurred. And there have been other cases in which courts-martial were illegal, not because the convening officer held no warrant, but because his warrant did not authorise

*Rule of Procedure 22, Note 5, in both Manuals.

him to convene the court in question. Some twelve years ago, in one station, five trials had to be quashed in rapid succession for this reason.

Under the Air Force Act and the Indian Air Force Act there are no different classes of the same warrant, but until recently there were four under the Army Act and the Indian Army* and Burma Army Acts; though now, in peace, two only are actually under issue in India and three in Burma. On the other hand, warrants in India at any rate frequently contain restrictions; for instance, they may be personal warrants, so that an officiating officer has not always the same authority as the permanent holder of an appointment. I have also known the holders, from General Officers Commanding in Chief to Brigade Commanders, to lose or mislay their warrants, so that, though the actual power existed, convening officers could not make certain of their powers or the limitations on them. While restrictions are generally incorporated in the warrant itself, further restrictions are frequently made by letter separately. Trials for which no warrant is necessary are field general courts-martial, summary general courts-martial and summary courts-martial. Though no warrant is required, the law must be complied with, and a field general court-martial and summary general court-martial will be illegal if convened by anybody not authorised by law to do so, and the court must be properly constituted.

In the war summary general courts-martial were convened to try personnel belonging to an irregular force raised at Aden by the War Office. The men were not subject to the Indian Army Act, but the Army Act, and in fact were described as privates, while the officers were Yuzbashis, Mulazims, etc. The trials had to be quashed, and the men re-tried by field general courts-martial.

A summary court-martial can only be convened by a commanding officer, but a *de facto* officer commanding is not always a *de jure* commanding officer; for instance, an officer commanding a detached company will not be a commanding officer merely through being the officer commanding a detached body, if the commanding officer of his corps still maintains control; but he will become a commanding officer, and therefore entitled to hold a summary court-martial as officer commanding a detachment,† if he is out of the control of the commanding officer of his corps, and it will then be illegal for the commanding officer of the corps

*The other warrants still exist, though not actually in issue. There is nothing to prevent a re-issue.

†Indian Army Act 64.

to try the man by summary court-martial. A soldier can never have two commanding officers at the same time.

Convening Order

A court-martial must be convened in accordance with the law, and a trial depends on the legality of the convening order. Everyone is familiar with the composition of the ordinary court-martial, so that if there appears anything unusual in the composition of a court and the members of a court-martial are not absolutely familiar with the law for convening a trial they should at once look it up in the Manuals. In fact it is generally advisable to do this, or some little point may be overlooked that will invalidate a trial.*

Some twenty years ago, a general court-martial was convened to try separately three officers, the commandant and the adjutant of a Hill Depôt and the officer commanding one of the detachments in this depôt. The charges all arose out of one incident, the looting of a treasure chest, and these three officers were charged with neglect of duty in their varying capacities. The trial of the officer commanding the detachment was first held, and he was duly convicted. The court apparently arraigned the other two officers, but proceeded to record that the evidence at the first trial satisfied them, and they acquitted both the commandant and adjutant immediately, without calling any evidence. By such action the court broke their oath to try the accused according to the Army Act and to give their verdict on the evidence, since they took none. Since an acquittal requires no confirmation the verdict in the case of the adjutant stood, however improper the procedure leading to this acquittal. In the case of the commandant, however, it was found on review that the court was illegally constituted, two of the officers being of lower rank than the commandant, and there being no written opinion in the convening order to the effect that this was necessary in the interests of the Service.† His trial was, therefore, no trial legally and he was liable to retrial, but actually no such action was ordered.

On another occasion a court was composed of officers from one battalion only, and in compliance with the Rules of Procedure‡ it was stated in the convening order that, in the opinion

*The main points regarding the convening of the court are summarised in the Manual of Military Law, page 767, the Manual of Air Force Law, page 554, and the Manual of Indian Military Law, page 406. As there is, as yet, no Manual of Indian Air Force Law, the statute and rules themselves must be consulted.

†Rule of Procedure 21 (A).

‡Rule of Procedure 20 (A).

of the convening officer, no other officers were available. The trial was nevertheless quashed, since the waiting member was an officer of another battalion, and therefore available to serve on the court.

The following case supports the belief that the idea of the junior officer quoted at the beginning of this article may be more prevalent than would otherwise be imaginable.

The convening order directed that a subaltern of a certain regiment was to be a member, his name being entered in the convening order. A subaltern of the regiment duly arrived, but must have pointed out that he spelt his name with an "e" at the end, while the convening order spelt it without. It is hard to believe, but the court then refused to let him serve and appointed the waiting member, though there was no other subaltern in the regiment of the same name, whether with or without an "e" at the end, and it was perfectly clear that the officer intended by the convening order was present. Any doubt felt by the court should have been resolved by adjourning and enquiring from the convening officer.

On more than one occasion a court under the Army Act has been convened by an officer officiating in command of a brigade, who, as commanding officer of the accused, had remanded him for trial. These trials are quashed, though only a King's Regulation has been transgressed and not the law, since it is inequitable for the same officer to act in both capacities, and it is most important not only that an accused should be treated impartially but that this impartiality should be clear to everybody. It is only on board ship and if especially allowed by the Army Council that a Commanding officer can remand an accused for trial by court-martial and subsequently himself convene the court.

Objections

The principle by which to be guided in regard to objections made by an accused to members of the court, the interpreter or shorthand-writer is to allow them, unless palpably absurd, on the principle of impartiality and fairness to an accused.

For instance, an accused objected to a member of the court, because he belonged to the same regiment as himself and must have heard about and formed his opinion of the case. The court disallowed the objection, but the trial was quashed on the above grounds.

Eligibility and Disqualification

Courts have turned out on more than one occasion to be illegally constituted because the junior member was ineligible to serve through not having sufficient service.

As an example of disqualification the following case may be quoted. A court-martial at a large station in Southern India, before the War, was convened to try several men of a fatigue party who had been working at the railway station and chanced upon a box of liquor of various sorts consigned to the gymkhana club. They had partaken of this as welcome refreshment. In those days all officers in a station, with practically no exceptions, belonged to gymkhanas, and so were disqualified from serving on any court that was assembled to try an offence concerning the gymkhana.* This was forgotten, and all the members were disqualified.

Swearing of the Court

It hardly seems possible that errors should occur here, but instances have happened where a court has not been sworn, and the trial has therefore been quashed.

One such error arose through carelessness on the part of the court. It frequently happens that a court is convened to conduct several separate trials, and in such cases it is legal, and saves time, for the court to call in all the accused together, to be sworn once in front of all and then to dismiss the other accused to await their turns while the first trial is carried out. On one occasion the court neglected to ascertain that all the accused whom they were directed to try, were present when they took their oaths, and in fact one was not present, and the court, when his turn came, were not sworn.

In another case the error arose from the same intended procedure by the court. All except one accused objected to one of the members, and the court allowed the objections, appointed a waiting member and then took the oath and proceeded to try all the accused with the reconstituted court. They had no jurisdiction in the case of the accused, who had not objected to any of the members of the original court.

And a case is on record of a court convened under the Army Act but taking the oath for a court convened under the Indian Army Act. It was therefore not sworn at all for the purposes of the Army Act.

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*Rule of Procedure 19 (B) (V).

Charge Sheet

A charge must be legal, *i.e.*, must be properly framed and disclose an offence against the law, under which the trial is being held. The charges are entered in a charge-sheet, which starts off with the heading, in which is entered a description of the accused showing that he is liable to military law and to the court by which he is to be tried, *e.g.*, if an officer of the Territorial Forces or Auxiliary Forces, India, is to be tried by court-martial under the Army Act, the heading should show that he is subject to that Act, by being embodied or for some other similar reason.

Then comes the charge itself, which is divided into two parts, the statement of offence which must be in the words of the Act, and the particulars, that part of the charge which describes in detail the actions of the accused. The particulars must be clear and must show every ingredient of the offence charged, and not show more than one offence. There is an exception to this in a charge alleging "conduct," where it may be necessary to state several actions which together amount to such improper conduct, for instance a brawl at a dance.

The remainder of the charge-sheet consists of the endorsement by the officer commanding the unit of the accused, and the order for trial by the convening officer.

This may sound complicated but the accuracy of a charge sheet is essential to our English ideas of justice, and in point of fact any indictment in a civil court is drawn up on almost identical lines.

Mistakes have occurred in all five portions of the charge sheet.

Heading

At a trial by field-general-court-martial an accused was described as a private (acting probationary second lieutenant). It is impossible for anybody to be both soldier and officer at the same time, but a field-general-court-martial has jurisdiction to try either, so the trial was held to be legal. The court however, awarded a sentence of detention, which is not a legal sentence for an officer, and this was quashed.

Mistakes of this are most likely in India on active service, since civilians who then become subject to military law are frequently given status as officers, warrant officers or non-commissioned officers. If a press-correspondent or a contractor, for instance, has status as an Indian Commissioned Officer or Viceroy's Commissioned Officer or Indian Air Force Officer he must be tried by a general court-martial. Trial by district court-martial of such a person is beyond the jurisdiction of the court.

Statement of Offence

The statement of offence must be in the words of the Act, and these must not be altered, except where variation is shown to be permissible. For example, in Section 25 of the Army Act, there is a long list of words, "report, return, muster roll, pay list, certificate, etc." followed by the words *"other document"* in italics. If no word in the list is correct, an appropriate word may be substituted. The following was incorrect:

Army Act, Section 33.	Making a wilfully false answer to a question set forth in the attestation paper which was put to him by, or by direction of, the assistant recruiting officer before whom he appeared for the purpose of being attested.

It was argued that under Section 94 of the Army Act various persons are made justices in relation to the attestation of soldiers and that under Recruiting Regulations, a recruiting officer had power to attest a soldier and therefore the conviction should stand. Unfortunately, no evidence had been produced to show that an assistant recruiting officer had been appointed an attesting officer, and Section 94 of the Army Act does not itself make an assistant recruiting officer an attesting officer, but merely authorises the Army Council to make regulations appointing attesting officers. Had this evidence been produced, the incorrect statement of offence might have been overlooked on the grounds that the accused had not suffered any prejudice thereby.

Particulars

As regards particulars of the offence, a charge for conduct prejudicial to good order and military or air force discipline sometimes causes difficulty. It is not enough to put certain actions of an accused, of which a superior disapproves, in the particulars of the charge and expect the charge to be legal. The actions must be clearly prejudicial to both good order and discipline. The following charge was, for example, held to be bad:

An act to the prejudice of good order and military discipline, in that he,

> at Poona, on . . . , was in possession of two rounds of ammunition.

There are plenty of circumstances in which a man, soldier or civilian, is entitled to be in possession of ammunition, and the particulars of the charge did not show in any way that this was not one of these.

It is also not correct to frame a charge under Section 40 of the Army Act,* or its equivalent under Indian Acts, as an alternative to a charge under another section, unless the circumstances show clearly that the action of the accused does amount to different offences according to the interpretation put upon it. For instance, an accused was charged under the Army Act Section 9 (2), and 40 alternatively, the particulars being in each case,

> "In that he at Nasirabad, on . . . , when ordered to fall out with the drivers by Sergeant *A*, commanding No. 9 sub-section, did not do so."

If the accused committed any offence it was one under section 9 (2).

On the other hand, alternative charges under sections 8 and 40 of the Army Act may be required. If an accused can prove he did not know the person he struck was his superior officer, the striking may still be an assault, and an offence against good order and discipline.

Charges under the Army Act Section 8, also cause difficulties, since the difference between the use of violence and an offer of violence is not always understood, nor that between threatening and insubordinate language.

The following charges have been held to be bad:

> "*Offering violence to his superior officer,* in that he at Secunderabad, on . . . , threw a bayonet at Corporal . . . , hitting him in the arm."

The particulars disclose the use of violence, an offer being an attempt to use violence, which fails.

> "*Using threatening language to his superior officer,* in that he at Bombay, said to Sergeant *A*: If it weren't for the stripes, I'd hit you," shaking his fist at Sergeant *A*."

The words used clearly disavow any intention of using violence, and therefore were not threatening.

Again an airman was charged before a court-martial under the Army Act with fraudulent enlistment into the Army.† An airman cannot commit this offence, but does commit an offence under the Air Force Act.‡ He should have been returned to the Royal Air Force for trial.

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*The same applies under the Air Force Act.
†Army Act, Section 13.
‡Air Force Act, Section 13.

Duplicity

Only one offence may be put in the particulars of a charge. If more than one is disclosed, there is duplicity and the charge is bad. For instance, the following charge is bad:

Army Act, Section 6. *When a soldier acting as sentinel leaving his post before being regularly relieved,*

in that he,

at . . . , on . . . , between 5 a.m. and 6 a.m., when sentry on No. I Post, Barrack Guard, left his post before he was regularly relieved and remained absent until he was apprehended at . . . on . . .

This discloses an offence under Section 15 as well as under Section 6. The particulars should have ended at "relieved," and a second charge been framed to deal with the absence without leave.

Endorsement by Commanding Officer

The Commanding Officer of the unit of accused must himself approve the charges and, to show this, should sign the charge-sheet. Formerly, a failure to do so invariably upset a trial, but now, if the commanding officer can furnish a certificate* that he did in fact approve the charges before trial, the trial may stand. It is clear, therefore, that the unit of the accused and the commanding officer must agree, though it is sufficient if the accused is attached

*Formerly a person making an accusation acted as prosecutor at a court-martial, even against his own commanding officer. Anybody can still bring forward a charge, but the commanding officer is now endowed by the legislature with power of deciding whether or not a soldier is to be punished for the offence charged. In this case he has full powers of decision whether military or air force law is to be invoked or not. In the case of an officer a commanding officer has no such powers of condonation or dismissal of a charge which ought to be proceeded with. The fact that a commanding officer has been endowed with these powers is probably the reason that a civil court can try or retry soldiers or airmen charged with civil offences, whether or not they have been punished under military law. Otherwise a soldier charged with murder could be let off by his commanding officer.

No other officer has this power of decision, and that is why the commanding officer's approval of the charges is required and it is necessary to ascertain that he has himself actually given his approval; and the best evidence only is accepted; either the commanding officer's signature on the actual charge-sheet or a certificate signed by him if he has omitted to sign the charge-sheet.

A commanding officer on leave has no powers and the person actually exercising command is *de facto* and *de jure* the commanding officer of an accused. A "second-in-command" cannot, under such circumstances, be restricted by his commanding officer from exercising these powers during the absence of the latter on leave, though cases of improper restriction have occurred.

to the unit of the officer signing as commanding officer. A signature "for" the commanding officer is not enough.

Order for Trial

A trial is illegal unless an officer holding a warrant to convene the court has ordered trial on the charge-sheet in the proceedings. A staff officer has no power to order trial without orders, but the signature of a staff officer signing "for" the convening officer is accepted, since it is the custom of the services for a convening officer to give orders for the convening of trial without actually arranging the court himself.

To quote an old case: In the days when a regimental court-martial under the Army Act was still legal, the commanding officer of a regiment thought the punishment awardable by such a court would not be sufficient, so convened what he styled a district court-martial to try the offender. He held no warrant at all, and his endorsement on the charge-sheet was of no value.

Again an officer holding a warrant proceeded on short leave, and his staff officer issued an order convening a trial in his absence. An officiating commander had been appointed in Command Orders, and confirmed the trial. This court was doubly illegal as an officer has no authority while on leave, and even if he had had the power to convene the trial, he had not approved the charges. The staff officer had no authority of his own to convene the trial or approve the charges.

Evidence

Evidence must be legal, but every trial is not upset because some of the evidence is inadmissible. The whole case is considered, and if the court must have arrived at the same verdict without the inadmissible evidence the trial will stand, but if the accused has in any way been prejudiced it will be quashed. Inadmissible evidence in favour of the accused has no effect on the results of the trial. A somewhat common error leading to the quashing of several trials in recent years has been a failure to comply with the Rule of Procedure* which directs that all the proceedings of a court, including the view of any place, must be in open court and in the presence of the accused. On one occasion, for instance, the court, after adjourning for the day, felt that they were not clear as to localities and went by themselves to examine the scene of the offence. They thus took what amounted to unsworn evidence, on which the accused, too, had not been permitted cross-examination, and based their verdict on this to his prejudice. On

*Rule of Procedure 63 (B).

another occasion, the court went and examined a barrack-room nearby which was not the scene of the offence. This view apparently took place in open court, but there was no evidence of similarity of the particular barrack-room with that of the place of offence, nor was there evidence that the furniture and fittings were in similar places, and any conclusions drawn by the court were therefore irrelevant and might have been prejudicial to the accused.

Violence

Once or twice on a charge under Section 8 of the Army Act for offering violence the verdict has been against the evidence, since there was clear evidence of the actual use of force, though the charge was good taken by itself as a charge. The reverse is, of course, correct, as on a charge of using violence it is legal to bring in a verdict of offering violence only.*

Absence from Parade

Convictions on charges for failure to attend a parade appointed by the commanding officer are not seldom illegal, through a failure on the part of the prosecution to realise the ingredients of the charge, and as a consequence the non-production of sufficient evidence to prove the offence. This is especially the case where a soldier has been absent from a company parade. Such a parade is not necessarily one appointed by the commanding officer. In all cases of such a charge it is necessary to prove the appointment by the commanding officer of both the place and time of parade, that the accused had notice of these, that he was absent without leave for causes within his control. If there is any doubt about there being sufficient evidence to prove all these ingredients a simple charge of absence without leave should be preferred.

Theft

In cases of theft it is always necessary to produce the articles stolen, or account for their absence if not recovered. This is clearly necessary in cases where there is a dispute as to ownership, *e.g.*, when the accused claims an article as his own. In one case where an accused was charged with theft of a bicycle, the identity of which was disputed, it was not produced at the trial, so that the court could not in its absence form any proper conclusions in the matter.

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*Army Act and Air Force Act, Section 56 (4B).

In charges for civil offences courts should be particular to make certain they understand the offence by looking up the definitions in the preliminary chapters of the Manuals.

Stealing is a technical civil offence, for instance, of which one of the most important ingredients is the intention of permanently depriving the owner of his property. At one trial an accused charged with theft stated he had taken the articles as security because the owner had stolen some money of his. The accused was mistaken as to his legal rights, but his action was not theft, which cannot be committed under a *bona fide* claim of right, another necessary ingredient of this offence, and as he only took the articles as security, he also did not transgress the other ingredient mentioned above.

Burglary

Burglary is another civil offence that often is not understood because it has many technical ingredients, the simplest of which is that it cannot occur except between 9 p.m. and 6 a.m. An accused charged with burglary must, therefore, be acquitted of this offence if it was committed at 8 p.m., even if every other ingredient necessary has been proved, though he may be convicted of house-breaking.

Joint Trials

Joint trials frequently cause trouble, but are not really very difficult as long as it is remembered that the word "joint" means something. Though there are several accused, the crime is a combined one, and the procedure at trial is to treat them all as if they were one person, without depriving each as an individual of his rights. Therefore arraignment, rights of cross-examination of prosecution witnesses, and of giving evidence and calling witnesses are individual, but also combined in the sense that answers on cross-examination of a prosecution witness elicited by one accused may go against or on behalf of all, and an accused who gives evidence himself may be cross-examined by all his co-accused. The court must treat the defence by all as one combined procedure and close for the finding once only, though it records a separate finding for each person, and once only for the sentence, though again each convicted person is sentenced separately.

A court on one occasion treated the defence of each of three accused as entirely separate, allowing no cross-examination by the co-accused, and in fact, at one period of the trial, one accused was not even in court; and there were three separate closures of the court to consider their findings.

Bad Character

The rule as to when evidence of the bad character of an accused may be elicited is not always understood. This is practically a word for word copy of the ordinary law of evidence, which causes difficulties even in civil courts to judges of experience, so that an occasional error by a court-martial is not altogether surprising.

The rule is that an accused may not be asked questions tending to show that he has committed, been convicted of or charged with any offence other than the one for which he is being tried, or is of bad character, unless—

(1) the proof of such other offence shows his guilt of the offence with which he is being charged, or

(2) his defence has been conducted in such a manner as to establish his own good character, or to involve imputations on the character of the prosecution witnesses, or

(3) he has given evidence against any person charged with the same offence.

This rule is very strictly interpreted, and even if an accused has rendered it admissible it is very seldom indeed that such evidence will have any bearing on a case; it is safer for the prosecution not to attempt to elicit this evidence and, if there is any doubt whatever, it is foolish to do so.

An accused at one trial, giving evidence himself, said, "I was charged with another offence on the Saturday which was dropped." This offence was in no way relevant to prove the offence charged so that exception (1) above did not apply, nor was (3) applicable. Only exception (2) therefore remained. There had been no imputation on the character of the prosecution witnesses, so the only remaining applicable point was that the accused had tried to establish his own good character, which was not the case, and clearly the statement made by the accused did not do this. The court, however, permitted the prosecutor to cross-examine the accused as to the offence of which he spoke, and later to produce the minor offence report relating to that offence, which also had recorded on it another offence, also not the subject of the trial and not relevant in any way. The conviction was annulled.

Since the question is very important, it may be of advantage to quote the House of Lords on the matter in an Appeal case, as this was the ruling leading to the above annulment.

> "This rule is negative in form, and as such is universal and absolute, unless the exceptions come into play. There are three exceptions, but it does not follow that, when the absolute prohibition is followed by a permission, the permission is as absolute as the prohibition. When it is sought to justify a question it must not only be brought within the terms of the permission, but also must be capable of justification by the ordinary rules of evidence, and in particular must satisfy the rule of relevance."

The Lord Chancellor further stated, "In general no question as to whether a prisoner has been convicted or charged or acquitted should be asked, or if asked, allowed by the judge, unless it helps to elucidate the particular issue which the jury is investigating or goes to credibility, *i.e.*, tends to show he is not to be believed on oath: indeed the question whether a man has been convicted, charged or acquitted, even if it goes to credibility, ought not to be admitted, if there is risk of the jury being misled into thinking that it goes not to credibility but to the probability of his having committed the offence with which he is charged."

The law under the Indian Acts may be taken to be the same, though put differently, since the Indian Evidence Act merely states that bad character is irrelevant, with exceptions.

Documents

In general a document is evidence of nothing except that certain marks occur on it. It is not evidence of the truth of what these marks indicate, unless the law lays this down. In the case of private documents no law allows this, and it is only in the case of certain public documents that the law makes exceptions, and the exceptions with which a court-martial will be generally concerned are given in the Manuals.* All documents must be produced by a witness on oath to prove their identity, and the truth of all private documents must be sworn to by a witness who is competent to do so; and similarly with public documents, unless there is a law laying down that the document in question proves its own truth. Further, it is hearsay to refer to a document not produced in court; a document itself, even if produced, may be hearsay.

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*Army Act and Air Force Act, Section 163.
Indian Army Act, Sections 91, 91A, 92.
Indian Air Force Act, Sections 95, 96, 97.

On one occasion the defence was denying an order alleged by the prosecution to have been issued, but which was not produced in court. The president of the court interrupted the defence, and said the issue of the order was within the knowledge of the court. This was not a matter within their general military knowledge, and no judicial notice of the order was permissible.

On another occasion an expert on handwriting handed in a written statement and the accused was not allowed to cross-examine. A witness must give his evidence orally, but may refresh his memory from a document if he first satisfies the court that it was written correctly, while the matters entered were fresh in his memory. Even then the document does not become evidence, and remains written hearsay, and an accused may always cross-examine a prosecution witness.

Evidence by Accused

Under the Army and Air Force Acts an accused is entitled to give evidence on oath, but trials have had to be annulled because an accused has not been allowed by a court to do so. The reason for this error has sometimes been the use of the Indian Army Form of Proceedings instead of the Army Form, since there is no provision under Indian law for an accused to give evidence, and therefore there is no question recorded in the form of proceedings of an Indian court-martial asking if an accused wishes to give evidence himself.

An accused is also entitled not only to give evidence on oath, but to make an unsworn statement on which he may not be cross-examined. In one case cross-examination was permitted and the trial in consequence annulled.

Under the Indian Army and Indian Air Force Acts an accused is not entitled to give evidence on oath, but cases have occurred, where this has been permitted. The trials have not been quashed, provided the accused was not cross-examined, since on a statement not on oath, which is all an accused under these Acts is entitled to make, cross-examination is not permissible.

Several Charge-sheets

Where there has been more than one charge-sheet errors have occurred through a failure to study the rules. The trial on each charge-sheet must be carried out up to the finding as though each case was a separate trial. Thus evidence on one charge-sheet cannot be considered on another, and if it is necessary to prove any of the facts already proved on the first charge-sheet to support a case on other charge-sheets, the evidence must be elicited afresh.

Failure to carry out this procedure correctly has necessitated annulments.

Findings

Sometimes a finding shows that a court has not understood the case, especially on a plea of guilty. After such a plea an accused is entitled to make a statement in mitigation of punishment, and if he says anything in this statement negativing the plea, the court must alter the plea to one of "not guilty" and try out the case. The test to apply is, "Does the statement, assuming it to be true, negative the plea?" It is not material that the court consider the statement false.

For instance, on a charge of striking his superior officer an accused pleaded guilty, and stated in mitigation that an affray occurred in the dark, and he could not see whom he was striking. This is a complete defence to such a charge as it is necessary for an accused to know that it is a superior officer whom he is striking and then to do so deliberately without lawful excuse. Failure to try out the case invalidated the trial.

A court may refer to a confirming officer for an opinion on a case before they come to a finding, but they must first state the facts they find to have been proved, and may then ask the confirming officer if these facts amount in law to proof of the charge. In one case, on a charge for desertion it was proved that the accused absented himself to ventilate a grievance, and surrendered voluntarily. The court referred to the convening officer and asked if this amounted to desertion. This was a reference asking for an opinion as to the facts, since the question whether the accused absented himself with an intention not to return was a question of fact for the court to decide. The proceedings were not confirmed.

In another, a man was charged with blackmailing six men, but evidence was adduced only as to three. The court convicted of the charge as laid. They should have recorded a special finding.

Again, an accused was tried on 25th May 1918 on a charge of desertion on 23rd February 1915. He was convicted of absence without leave only. This finding was illegal; the special finding could only find an accused guilty of absence without leave for a period limited to three years previous to the date of trial, since Section 161 of the Army Act forbids trial of any person for any offence except mutiny, desertion or fraudulent enlistment, committed more than three years before the date of trial.

A sentence of detention or imprisonment commences on the date on which the proceedings are signed by the president, and such signature authenticates the proceedings as a whole. Cases have occurred where a president has omitted the date, or his signature, or both.

(*a*) In one case a court omitted to record any sentence at all.

(*b*) In another a court awarded a sentence of forfeiture of rank and seniority specifying a date earlier than the actual date of promotion.

(*c*) Under the Army Act and Air Force Act a sentence of stoppages is illegal, unless evidence has been elicited as to the value of the article stolen, lost, or damaged. Under the Indian Acts judicial notice may be taken of the value of articles with regulation values. In all cases the value must be specified in the particulars of a charge.

Revision

Revision of the finding and sentence of a court which require confirmation is permissible once, and once only, and under the British Acts no fresh evidence may be taken nor may the sentence be increased. The powers of the court as to revision are limited at the discretion of the confirming officer. If the latter directs revision on the finding on one charge only out of several, the court have no power to revise their findings on the other charges.

Trials have been quashed because courts under the British Acts have taken fresh evidence on revision, and sentences have also been quashed because they have been increased illegally.

An order to a court to reassemble to complete an incomplete proceedings is not a revision. Thus a court revised its findings, but although this included convictions on some charges no sentence was passed. They were ordered to complete the proceedings by recording a sentence.

Confirmation

Only officers who hold warrants authorising them to do so may confirm the proceedings of a court-martial which requires confirmation. The rules as to confirmation vary somewhat under British and Indian laws, but the chief difference to be noted is that an acquittal under British law is final and requires no confirmation, while under Indian law it is not final and may be revised or not confirmed.

An officer who has convened a trial cannot confirm it, if in the meantime he has relinquished his command, or is on leave. A confirming officer's powers are limited to confirming or not confirming the findings. He may not substitute a special finding, but if he thinks a special finding ought to have been recorded he can order a revision by the court. A higher sentence may be commuted to a lower, and sometimes to more than one lower sentence, but these together must be clearly less than the original. Thus the commutation of a sentence of one year's imprisonment with hard labour to nine months' imprisonment and stoppages for £10 was ruled to be illegal as it was impossible to decide whether the two punishments were less than the original sentence. On the other hand, the commutation of a sentence of dismissal to a sentence of forfeiture of seniority of rank and severe reprimand was clearly correct.

If a sentence is wholly illegal it cannot be confirmed or commuted or mitigated, so that when three soldiers were sentenced to penal servitude for three years, one year, and one year, respectively, and the confirming authority mitigated these sentences to detention for six months, six months, and three months respectively, the accused were legally under no sentence at all, since no sentence of less than three years penal servitude can be awarded by any court. The convictions, however, stood.

The terms used in dealing with sentences are "confirmed," "commuted," "mitigated" or "varied." The first three are clear, but variation is often improperly used. A sentence is only varied if improperly expressed or in excess of the authorised punishment, and may only be carried into effect by a confirming officer in confirming the proceedings. For instance, a court sentenced an accused to 168 days' detention and discharge with ignominy. The latter sentence may not be added to a sentence of detention, and the sentence awarded was thus in excess of the punishment authorised by the law, and was varied by making it discharge with ignominy only, and confirming the sentence as so varied. Had the sentence been mistakenly confirmed, one part or the other would have had to be remitted, and there would have been no power of variation remaining.

ADEN, ONE HUNDRED YEARS OF BRITISH RULE

By Captain F. D. I. Wood, R.A.

On the 19th January 1939 Aden celebrates its centenary of British Rule. This is, therefore, a very suitable time to review its history, particularly as part of the Indian Empire, and to give an account of recent events and modern conditions there.

Perhaps we are rather apt to forget that our smaller possessions, like our larger ones, have a history; usually a history of individual and collective endeavour. Just as India has her Clive and Warren Hastings, so has Aden her Haines.

To begin with, let us go back exactly four hundred years to 1538, in which year a Turkish fleet under Sulieman the Magnificent captured Aden. Aden's history from then onwards can be divided roughly into four periods of approximately a century each.

The first period saw the visit of an English ship. In 1609 Captain Sharpey from his ship "Ascension" sighted the harbour and was bold enough to enter. Although well received at first, he and his crew were imprisoned later on and only released when the governor had taken as much as he could out of the ship.

The following year a visit was made by Admiral Sir Henry Middleton with three vessels which were attacked, but which managed to beat off their attackers and sail away.

The second period begins in 1630 when the Turks were compelled to evacuate the Yemen and Aden, the latter place passing to the loose suzerainty of the Imam of Yemen. The control of the Imams, like the Ottoman rule, lasted about a hundred years, until 1728, when Aden was seized by the Sheikhs of Lahej.

During this third period, from 1728 to 1839, Aden's history was uneventful until, towards the end, when a certain Colonel Murray and three hundred men occupied Perim, only to abandon it on failing to find water. It is interesting to note that they were entertained by the Sheikh or Sultan of Lahej at Aden, and such was his hospitality that he offered them the place. The offer was gracefully refused, but three years later, in 1802, a treaty was concluded with the Sultan and a plot of land in the now well known Crater allotted as a British factory and burial ground.

A search by the Indian Navy for a coaling station for the first steamship built in India resulted in coal being landed on Seera Island near the Crater. However, the natives proved to be indolent coal heavers, so Aden as a coaling station was abandoned and its place taken by Mukalla in the Hadramaut. In 1835 Sokotra having been captured and given up as unhealthy, the Bombay Government again turned their attention to Aden. Sultan Muhsin Fadhl of Lahej proved to be an inveterate plunderer of wrecks, but retribution was soon to fall on his head, for in 1838 his plundering, and outrages on the crew of the wrecked "Darya Daula," caused the Bombay Government to despatch Captain S. B. Haines to obtain satisfaction, or failing that to arrange for the purchase of Aden.

Haines, a bluff sea captain of the Indian Navy, had to bear with a great deal of haggling and prevarication before Sultan Muhsin finally agreed, on the arrival of troops, to cede Aden in return for an annual subsidy of eight thousand seven hundred crowns. The Sultan obviously thought no troops would arrive; however, Haines departed and returned in September in the sloop "Coote" with a bodyguard of thirty Europeans. He demanded the surrender of Aden in accordance with the pact, but the old Sultan, seeing the small size of the bodyguard, changed his mind and refused to cede it. The Sultan himself did not appear but used his son Ahmed as an intermediary. Haines' difficulties increased. He discovered plots against his life, supplies were refused and his pinnace was fired on. He retaliated by blockading the harbour and refusing entrance to the dhows carrying dates. Shortly afterwards he was reinforced by the schooner "Mahe" and the barque "Anne Crichton." The new year 1839 opened with a "very gallant skirmish" off Seera Island between the "Mahe" and the Arab battery manned by Egyptians.

More futile negotiations followed until a further reinforcement (H.M.S. "Volage," 28 guns, and "Cruiser," 10 guns, and 300 European and 400 native soldiers under Major Baillie) decided Haines on instant bombardment. The fleet accordingly stood into Holkat Bay and engaged the forts. The troops were unable to land until the "Mahe" schooner managed, by skilful manœuvring, to take up a position flanking the point near Seera. Then, two-and-a-quarter hours after the beginning of the bombardment, two parties of troops landed simultaneously from boats and took

the place by storm. Mate Rundle had the honour of planting the British flag ten minutes later on the Sultan's palace. This flag can now be seen at the Governor's residence in Aden.

The Sultan's sons fled, together with a majority of the Bedouins, of whom a hundred and thirty-nine were captured. The British losses were fifteen men. For his services on this occasion, Haines was rewarded with a sword worth a hundred guineas. Thus fell Aden on the 19th January 1839; the first capture in the reign of Queen Victoria.

After the capture Haines remained behind as the first political agent. For fifteen years he carried on, and undoubtedly laid the foundation of British influence in Southern Arabia. He was a remarkable man and, although forgotten by the British like so many of our Empire builders, his name is still renowned amongst the hinterland Arabs. He and his officers were all of the Indian Navy with the notable exception of Lieutenant Western of the Bombay Engineers. This officer completed the amazing ditch and field works which can be seen to this day and which helped in the successful defence of the Rocks against three Arab attempts to take them. Western was an early martyr to the climate and died of sunstroke in 1840.

After his third failure to recapture Aden, Sultan Muhsin craved forgiveness and a subsidy of five hundred and forty-one crowns was granted him. Haines won over successive Sultans of Lahej to our cause and the reigning house of Lahej has been amongst the most loyal ruling families in the Empire. The present Sultan, H.H. Sir Abdul Karim Fadhl, K.C.M.G., K.C.I.E., was an honoured representative at the Coronation last year.

Haines managed to pursue a consistent policy of sympathetic treatment although his orders from the Bombay Government were consistent only in their inconsistency. His final downfall is tragic to relate. In spite of his repeated pleadings he was never given a trained staff. Eurasians employed in his customs department were guilty of defalcations and dismissed by him. A commission of inquiry arriving in 1853 discovered a large deficiency. Haines and his chief assistant were recalled to Bombay. Like Warren Hastings, Haines had to face his judges. He was tried twice in Bombay and acquitted, but ordered to pay the deficiency. As he was unable to do so he languished for six years in a debtors' prison, only to die in Bombay on the 16th June 1860 shortly

after his release. Such was the reward and end of a man who, in a most difficult position, had served the Empire long and faithfully.

Aden's wealth, population and importance increased gradually during the second half of the 19th century. One day the fleet of a friendly power called, the admiral and his officers were hospitably entertained to dinner. During the course of dinner a lady discovered the real purpose of the visit. A British ship was hurriedly despatched to the island of Perim. Great was the chagrin of the admiral when he reached the island to find the Union Jack already flying there. Such is the story, or legend, of our occupation of Perim. A few years later the other side of the harbour entrance known as "Little Aden" was purchased and some twenty years later, in 1882, it was found necessary to purchase further land, including Sheikh Othman, to take the overflow of population from the peninsula.

The opening of the Suez Canal in 1869 greatly increased the importance of Aden as a coaling station. Latterly, Perim has been closed down and most of the ships which previously coaled there now coal at Aden. More important, however, is Aden's rise as an oil fueling station which, owing to cheapness due to the proximity of Persian oil, has been considerable. Now some hundred and seventy vessels call at Aden each month.

In the early eighties came the suggestion that Aden should be abandoned, at least during the hot weather, when it was so unhealthy; a place called Jabel Dubiyat, sixty miles from Aden and at an altitude of 6,000 feet being chosen as a suitable hill station. However, the suggestion does not seem to have been acted upon, as, to the author's knowledge, it has never been occupied. Somaliland is still the favourite place for those who want to get away from the Rocks in the hot weather. During the last two years, a political rest-house has been built at Dhal'a and this and the improvement of the road from Aden to take motor transport enables Europeans, includng ladies, to make visits to Dhal'a.

Provision of water has long been a problem for those who have occupied Aden. The Persians are reputed to have solved the difficulty in 575 A.D. by making the celebrated tanks, of which more anon. It is probable that the rainfall was much greater in those days; to-day it is too precarious for us to rely on this source. For many years the garrison existed on water condensed

from the sea, until seven wells were bored at Sheikh Othman, of which two are in operation, one supplying seven hundred gallons an hour from a depth of over 1,500 feet.

The political situation, also, has not always set an easy problem. British protection over the neighbouring Arab Sheikhs gradually extended, until in 1904 a commission fixed the boundary between the British and the Turkish spheres of influence. The commission finished its labours in 1907 when the garrison was withdrawn from the hinterland. Although the boundary was scrupulously observed by both sides there is little doubt that the withdrawal of the garrison made it easy for the Turks to intrigue with the Arabs, who began to think that we were not interested in the hinterland. The Imam of Yemen, our most powerful neighbour in these regions, was placed in a difficult position and in 1911 made a ten years' truce with the Turks, with the result that the situation at the beginning of the Great War was full of possibilities.

The War as it affected southern Arabia is particularly interesting as it shows how military activities must be dictated by political considerations which, in their turn, are affected by military successes or reverses. Whether or not we adopted the correct policy is open to argument but the reader can form his own conclusions from the facts which are here briefly related.

When war was declared with Turkey, her forces were estimated at one army corps in the Yemen. The Aden garrison consisted only of a detachment of Indian cavalry called the Aden Troop, one British battalion, The Lancashire Fusiliers, one Indian battalion, The 109th Infantry, and some coast defence, but no field or mountain artillery.

In November 1914 hostilities commenced when the 28th Infantry Brigade moving from India to Egypt landed near Sheikh Sa'id, drove the Turkish concentration inland and departed. Shortly after this the Brecknockshire Battalion, Territorial Army, relieved the regular battalion and the 23rd Sikh Pioneers reinforced the garrison.

By June 1915, it was obvious that a Turkish division was preparing to attack the protectorate. Its commander, General Ali Sa'id Pasha was assured of support from certain Arab Sheikhs. His opposite number, Major-General D.L.B. Shaw, commanding

the forces in Aden, decided on an active policy and accordingly sent the Aden Troop to the help of our faithful ally, the Sultan of Lahej. The Aden movable column, one thousand strong, had already been formed, the numbers available being limited by the necessity for finding garrisons for Red Sea islands like Kamaran, which had been taken from the Turks in June. The 23rd Sikh Pioneers were employed in repulsing a Turkish attack on Perim.

At 3 a.m. on the 4th July, the movable column set out to march the fifteen miles from Sheikh Othman to Lahej. By 7 a.m. the heat was exceptional, even for July. The troops, many of them unacclimatised, suffered terribly. Men began to fall out with heat stroke. By midday, owing to the thirst caused by the intense heat and fatigue by the heavy going, the column was almost incapable of further movement. Just at this time firing was heard from the direction of Lahej. This was the advanced guard, consisting of the Punjabi Mussalman company of the 109th Infantry and four ten pounder guns, engaging the Turks, who had descended on Lahej from the north simultaneously with our advance from the south. The column started on its way again, many more men falling out from heat stroke, and eventually reached Lahej between 4 and 5 p.m. in a completely exhausted condition. Its troubles however had only begun. Our loyal ally, H. H. Sultan Sir Ahmed bin Ali, K.C.I.E. of Lahej, had been putting up as much opposition as his limited forces permitted when unfortunately, in the confusion of the fighting, he was wounded by a party of the actual troops sent to his succour. His Highness was fleeing from Lahej to Aden at about 2 a.m. and, failing to answer the challenge of a post with orders to stop anyone passing along that road, was fired at and wounded. It was an unfortunate and unavoidable mistake. His Highness died a few days later in Aden after the amputation of his leg.

Just before nightfall the column moved to a position within a walled garden and prepared for the attack of the Turks. The camp in the garden was shelled vigorously and Turks and Arabs advanced to the attack. Only a hundred men of the Brecknockshires were capable of fighting and whilst they kept off the attack on the left, the 109th Infantry and the Baluchis counter-attacked. About this time news reached Lahej that all the camel drivers, on hearing the firing, had bolted. This unforeseen mishap meant that the little force in Lahej had lost all their reserve ammunition,

food and water, and in addition the guns of the 15 pdr. camel battery were left stuck in the sand four miles to the south.

The night wore slowly on and just before daylight the defenders noticed that the Turkish pressure was easing. Even so the situation of the force was critical and the commander decided that the position was untenable, and at 5 a.m. gave the order to retire. Meanwhile as many Ford cars as could be obtained were requisitioned by the staff in Aden, filled with ice and sent up. None of these ancient cars reached Lahej, either breaking down or becoming embedded in the heavy sand *en route*. As it happened it was fortunate that this did occur since the cars were a very welcome source of strength to the exhausted troops retiring along the so-called track. The Turks had made an excellent forced march from Ta'iz but were, as a result, just as exhausted as the British column. For this reason they did not press their pursuit, a stroke of luck for us as the plight of the troops, bad as it had been in the advance, was even worse during the retirement. They had fought all night and had had little food and practically no water. The Ford cars and camels sent out from Aden with food and water saved many lives. Nevertheless the column could only move slowly and did not reach Sheikh Othman until 9 a.m. on July 6th. The Turks continued their advance towards Aden slowly. But, as the British troops were insufficient to hold Sheikh Othman and transport difficulties were great, the column commander decided to abandon the town, which was occupied by the Turks on the 8th July, and accordingly retired to Khor Maksar to protect the new Admiralty wireless station. The Khor Maksar position was a comparatively strong one with both flanks protected by British warships. Here at last the enemy was held at bay and Aden, having lost its main water-supply at Shiekh Othman, fell back on its reserve of water condensed from the sea. We had started the war in southern Arabia, as in many other countries, with a considerable reverse!

However, an improvement was soon to take place. Reinforcements in the form of the 28th Field Brigade and two Territorial horse artillery batteries arrived from Egypt on July 18th. Major-General Sir G. Younghusband, the new commander, lost no time in attacking the Turks, and on July 21st advanced against Sheikh Othman and retook it. The brunt of the fighting in this action was borne by the 53rd Sikhs. Sir G. Younghusband fortified the

town and, on receiving further reinforcements from India, advanced northwards. On the way, he engaged a superior force near Waht, punished it and returned to Sheikh Othman the same night. A similar attack was made on Waht on the 25th September after which the 28th Field Brigade returned to Egypt.

Aden was now left with one British and four or five Indian battalions until the end of the war. The strength of the enemy averaged about six thousand five hundred, including Turks and Arabs. On the 12th January 1916 an attempt was made to advance on Lahej, but the attacking force was held up at Subar, six miles short of its objective, where the Turks held a strong position covering the town. The column was therefore compelled to return to Sheikh Othman. It was now decided to hold what we had and not to advance further.

The local war was peculiar in many ways. Many small engagements took place which can best be described as reconnaissances in force. Caravans were allowed through the lines by both sides. The Turkish general, Ali Sa'id Pasha, allowed this because he received transit dues, and we allowed it because friendly Arabs behind the Turkish lines would otherwise have suffered greatly. Naturally, owing to the caravans, both parties knew everything about each other and the war was a *pax in bello.*

Whether our policy of halting where we did was correct is a debatable point. We had driven the Turks from the settlement but practically the whole of the protectorate was in their hands. It is true that the war here was only a side show. There was always the danger of our commitments becoming greater and greater. There was no very definite object. The Yemen was still Turkish and the retaking of our protectorate and the conquest of the Yemen would have been a major operation. Our lines of communication would have been lengthened and troops, urgently required in East Africa would have had to be deflected to southern Arabia. On the other hand there are two outstanding facts which may have a lasting effect on our prestige in this part of the world.

The first is that after the unfortunate shooting of H.H. Sultan Sir Ahmed bin Ali, his cousin, H. H. Sultan Sir Abdul Karim Fadhl, the present Sultan of Lahej, succeeded. He had the mortification of having to remain in Aden throughout the war, whilst a Turkish general lorded it over his territory and a Turkish army lived on his land. Nevertheless he never lost confidence in

our cause in spite of our apparent inability to resume control of his protectorate.

Secondly, the Turkish general was never defeated. The war continued after the armistice. There was some difficulty in convincing Ali Sa'id Pasha that it was really over. His communications with Constantinople were always cut so he could get no verification and it was finally necessary for the British commander to refer to Constantinople and request the Turkish government to give orders to Sa'id Pasha. He surrendered with 2,500 men after an action in December 1918. The Turks were fed, clothed and equipped and repatriated as soon as possible. And the Sultan of Lahej was re-instated at Lahej by the General Officer Commanding with all due ceremony.

General Ali Sa'id Pasha was a Circassian and a sportsman. His final entry into Aden was in the nature of a triumph. Like General Von Lettow Vorbeck in East Africa he had always held his own, fought with clean hands and surrendered only because his country had been defeated.

After the war the garrison was gradually reduced to one British and one Indian battalion, a troop of Indian cavalry, coast defence guns and lights, and one flight of the Royal Air Force. The metre gauge railway which had been brought from India in 1916 and laid beyond Lahej was pulled up in 1929. It is still, however, shown on many maps as existing.

Later on, the Imam of the Yemen laid claim to much of the northern part of the protectorate and between 1919 and 1927 gradually encroached upon it. Air action finally induced him to withdraw his forces. The matter was eventually settled by the signing on the 17th February 1934 of the important treaty of San'aa. Under this treaty the Yemen was recognised as an independent kingdom and the boundary between British and Yemen territory finally fixed.

Before this, however, a big change had occurred in Aden. Up to 1928 the defence of Aden had been a responsibility of the Government of India but in that year the Imperial Government took over military control and the defence was entrusted to the Royal Air Force. Political control had already been vested in the Imperial Government since 1927. British and Indian battalions left the Rocks, the Aden troop was disbanded, the Indian ranks

being replaced by the Aden Protectorate Levies. This force, consisting of a machine-gun troop mounted on camels and two dismounted companies, was formed from a nucleus of the 1st Yemen Infantry. It consists of Arabs and a number of seconded officers of the British army, and is under the Air Ministry. The whole re-organization saved the taxpayer £100,000 a year.

Other important items of historical interest about this time were the visits in January 1933 of Haile Selaissie and in November 1934 of H.M. King Victor Emanuel of Italy. Under an old treaty the Italians were allowed to enlist Arabs from southern Arabia and have done so in considerable numbers for service in Italian Somaliland. The King of Italy was naturally interested in his farewell guard of honour which was furnished by the Aden Protectorate Levies.

Shortly after the signing of the Treaty of San'aa a considerable stir was caused by the arrival by ship at Aden of part of the Imam of Yemen's forces. The Imam was waging an unsuccessful war with Ibn Sa'ud and his garrison at Hodeida had deserted him. The force was interned at Aden, and at one time it looked as if troops would have to be sent to Hodeida to protect British nationals from lawless tribes. However, this was fortunately averted by the timely arrival of Ibn Sa'ud's forces.

During the Italo-Ethiopian war Aden had once again to support a large garrison. The single Royal Air Force squadron was increased to four and a half, including flying boats. The harbour, instead of containing an occasional Red Sea sloop or visiting cruiser presented a warlike scene with a varying fleet of approximately three cruisers of flotilla destroyers, four submarines, various sloops and numerous small craft. Once again the Crater saw an Indian Army battalion. This time it was The 5th Battalion (Pathans), 14th Punjab Regiment, less its detachment at Addis Ababa. The officers of this regiment used the empty harem portion of the Sultan of Lahej's Palace as a mess. The 9th (Mindon) Heavy Battery R.A. expanded and the Aden Anti-Aircraft Battery was formed from the existing section reinforced by two sections from Great Britain and two from India. Royal Engineer anti-aircraft searchlight units and Royal Corps of Signals reinforcements also arrived. By October 1936 the garrison was reduced to normal again and the ships in the harbour had left on their lawful occasions.

Finally mention must be made of the latest administrative changes. On April 1st, 1932, the administrative control of the settlement was transferred from the Bombay Government and Aden became a separate province under the direct control of the Government of India. Thus the chief executive officer, who was styled Chief Commissioner, Resident and Commander-in-Chief, had to serve two masters. He was responsible to the Government of India for the administration of the settlement and to the Colonial Office for the control of the protectorate. This state of affairs ended in April 1937, with the coming into force of the Government of India Act; the settlement's connection with India finally ceased, control of the whole area passed under the Colonial Office and the Chief Commissioner, Resident and Commander-in-Chief, Sir Bernard Reilly, became the first Governor. So ended a hundred years of British Rule.

"YOU CAN'T MIX OATS AND PETROL"

By "Museum Piece"

Officers of the post-war army must, by this time, be quite accustomed to the numerous well-worn clichés and catchwords which spring into being from time to time and which, though quite clear and understandable to their gifted originators, are quoted by all and sundry, many of whom you do not trouble to understand what they really mean. "Don't mix oats and petrol" is the latest, and sound advice as it may be to a young cavalry officer joining a regiment and confronted by the problem of feeding his horses, or to a harassed staff captain of a cavalry brigade wondering where he can carry the reserve petrol without contaminating the forage, it is doubtful if it will bear detailed examination when the composition of mobile troops for employment in undeveloped countries is considered. Where a network of macadam speed tracks exists, as in Western Europe, it is admittedly too obvious that the horse is an unnecessary drag on mobility. In the East it is questionable whether the horse is going to prove the impediment that it is painted.

Unfortunately, yet another cliché has arisen since the almost total mechanization of the British Cavalry. It is now commonplace to hear a British Cavalry officer of one of the unfortunate (?) regiments which have been deprived of their horses stating confidently: "Of course, it won't be long before the Greys and the Royals are screaming to be relieved of their horses. No one wants to be a museum piece." This statement is made by those very officers who fought tooth-and-nail to save their own horses.

One outstanding cavalry officer who was listening-in to an acrimonious discussion on the above lines asked the representative of a "museum piece," this time an Indian Cavalry one, what he proposed to do if armoured fighting vehicles appeared on the scene or in the face of gas.

"Body-line" bowling, perhaps, but an attack which unfortunately cannot be dismissed by the words "it is not cricket." The problem has got to be faced. If horsed cavalry re-organized as suggested below cannot establish a case for itself by proving that it can carry out certain vital tasks, not only satisfactorily, but better than purely mechanized cavalry, then it looks as if the odious nickname has come to stay "pending the supply of funds,"

the same old bugbear that strikes terror into the hearts of the most ardent and efficient reformers.

It is now proposed to discuss the difficulties of terrain which face the light tank acting independently in undeveloped countries and then discuss the tasks which might be allotted to mobile troops. Before doing so, the reader will have to be presented at the outset with what mechanization protagonists will certainly describe as a heresy.

This heresy, contrary to all preconceived military beliefs, is that horses and armoured fighting vehicles, or if it is preferred oats and petrol, should not only be mixed, but mixed within the same cavalry unit in the same manner as in the Russian Army. It is hoped to prove that horsed cavalry and light tanks are not supplementary but complementary, for purposes of warfare in undeveloped countries. The basis of the organization is that each regiment should contain one light tank squadron to three sabre squadrons, the latter organized as at present but with tripods for all light machine-guns.

There is yet one more heresy to follow, which may result in the heart failure of conservative cavalry leaders of the old school. It is the substitution of the pistol and short bayonet for the sword, the immense time now spent in training with the sword being utilised to produce revolver shots of the "Wild West" variety; men, in fact, who can shoot accurately mounted and be guaranteed to kill a dismounted man taking cover behind a rock or cactus bush or even in a trench. Tight putties must be replaced by loosely fitting canvas gaiters, which will allow the cavalryman to climb hills as efficiently as the infantryman, and spurs should consist of a very short, blunt metal protuberance let into the heel of the boot on the lines of a box-spur.

Dressed and armed as above the cavalryman may possibly present a drab picture on ceremonial parades, but he does not exist solely for the purpose once described by *Punch* as "giving tone to what would otherwise be an unseemly brawl."

The tasks of mobile troops have been frequently summarised in Training Memoranda, but at the risk of calling down more contumely from the high priests of mechanization, it is proposed to produce an even fuller list which, it is suggested, is made possible by this very admixture of oats and petrol.

These tasks, which this differently armed and equipped cavalry should be able to carry out are:

(*i*) Reconnaissance.

(*ii*) Protection.

(*iii*) Delaying action.
(*iv*) Seizing and holding ground pending relief by slower moving troops or to deny such ground to the enemy.
(*v*) To form a mobile reserve.
(*vi*) To participate in the battle by offensive action in direct or indirect co-operation with the main attack.
(*vii*) Exploitation and pursuit.
(*viii*) Special missions such as raids, the value of which has always been problematical.
(*ix*) Operations on the North-West Frontier of India.
(*x*) Internal security.

The list set out as above is a formidable one and looks rather similar to the advertisements of a patent medicine. Were it not for a conviction that cavalry reorganized on the lines suggested can carry out these tasks in undeveloped countries, this article would now come to an abrupt close, but it is continued in the hope of persuading the advocates of complete mechanization, and more particularly their converts, that there is still a use for horsed cavalry in war outside Western Europe. Converts are unfortunately often more enthusiastic in their beliefs than their missionaries for fear of the accusation of lack of faith, and so may be more difficult to convince.

Before examining these tasks in detail, a short summary of the types of terrain likely to be encountered and their possible effect on the mobility and action of mobile troops would not perhaps be out of place.

Wide plains with hard surfaces, no obstacles to movement and little water which are the dream of mechanization pandits and the obvious despair of horse soldiers. These are to be found in the western desert of Egypt and in portions of Mesopotamia. In Mesopotamia, it must be remembered, the elements of rain and flood are apt to lessen the importance of mechanization during the only months when fighting is humanly, or if it is preferred humanely, possible and the terrain alongside the rivers in this plain becomes a morass of mud. There are also in the vicinity of most of the rivers miles and miles of irrigation cuts which dear as they are to the heart of the horseman as small jumps and a source of water for thirsty horses, would scarcely be regarded with favour by the occupants of a badly sprung light tank. Tank movement would be slowed down practically to a halt, and crossing these raised channels might possibly have to be carried out in the face of an unaccommodating enemy with

well sited anti-tank weapons. The north of Mesopotamia conjures up other visions of the type of terrain to be encountered.

Broad, deep rivers and canals, across which horsemen pass with comparative ease, but which would prove most unpleasant obstacles to the light tank, *e.g.,* the crossing of the Lesser Zab, and the Tigris above Sharqat in October 1918, where the water in the ford came up over the top of the 18 pr. guns. But one can hear the mechanization convert saying: "General Cassels could have used the other bank of the Tigris for his turning movement." The reply is surely that it was purely fortuitous that it happened to be open, and that it was only the knowledge that it was completely impassable to horsed cavalry brigades on account of lack of water that led the Turks to leave it completely unguarded.

Palestine, with its rocky, precipitous mountain regions or fertile maritime plains, in both of which tank movement other than along well defined tracks and roads would be slower than that of the horse, and where these delightful water cuts, and what is still pleasanter for the horse soldier terraces and vineyards, exist. One has only to see one of these terraces about two feet deep to bring to mind the comment of a private in a British Infantry Battalion in possession of a token anti-tank flag in a flank locality which was being attacked by light tanks. "How many blinking rounds a minute do these anti-tank rifles fire as, so far, I have had seventeen aimed shots at *stationary* tanks." Perhaps it should be explained in this connection that although reconnaissance and orders for this attack by tanks and cavalry took two-and-a-half hours, the enemy battalion had been cunning enough to place their flank localities just beyond three 2-ft. terraces, which terminated a gentle slope down towards the position and which could not possibly have been detected other than by air photographs. These in the existing circumstances could not possibly have been made available, and that the cavalry regiment trotting a thousand yards in rear of the tanks with a view to relieving the latter on the objective, arrived still at the trot, before the tanks, must therefore be considered a fortuitous piece of misfortune.

The thought of rocks in Palestine unfortunately turns one's mind to portions of India such as the Deccan, where the movement even of horses cannot be carried out through many of the ridges faster than a walk or at best a fast zigzag trot. Oh, yes, replies the mechanization convert, "but tanks would go round." This is admittedly possible in some cases, but takes no account

of the rice fields. Horses can get through them slowly, but not tanks. Under the circumstances, a commander detailed to expel or delay a possible seaborne invader would be somewhat nervous, if his only mobile troops consisted of armoured fighting vehicles or truck-carried cavalry and infantry.

Then again the Deccan seems to be covered with mile after mile of scrub. An imaginary conversation between Major A.F.V. Convert and Major Museum Piece might well run as follows:

Major A.F.V.C.: "Look at that country—tanks can move through it just as quickly, if not quicker than cavalry, and it is not obsessed by the possible danger that there is a potential source of death lurking behind every bush."

Major M.P.: "Admitted, but how can you search all these bushes and ensure the security of the main body if each bush is really a potential danger? You will have to travel with your visors down? Can it be done with fifty tanks or won't it need some colossal number?"

Major A.F.V.C.: "Yes, but an enemy which would do that would be gambling with death—how are they going to get away?"

Major M.P.: "The same way as they may have come; by the flanks presumably, and it is not impossible that they may find at right angles to the axis of the advance a long, conveniently placed *nala* with few tank crossing places, on the far side of which they would site anti-tank guns."

Major A.F.V.C.: "But it is not cricket;" which was the sole argument that presented itself in defence of horsed cavalry, when first confronted by Major A.F.V.C.'s questions.

Perhaps an unbiassed reader will already agree that there is possibly something to be said for both sides.

But here Major A.F.V.C. plays his ace of trumps:

"Horsed cavalry are useless on the *North-West Frontier.*"

Major M.P.: "As constituted at present they are admittedly of little use, but dressed, armed and equipped as I suggest, what could they not do that you can do now? They will have some tanks to produce fire support, and at the same time dismounted and mounted men. Once long spurs and tight putties are abolished would it not be quicker to use cavalry supported by armoured fighting vehicles and mechanized artillery to piquet the moderately wide valleys, save the infantry the fatigue of getting out to these hills and so preserve them intact to take on all the more ghastly defiles.

They can gallop at least to selected dead ground at the foot of the hills, if not to some convenient shoulder on a spur, and continue the advance on foot. I hope you are not going to insult the infantry by suggesting that a cavalryman armed with the bayonet and properly trained is any less ugly a customer than the infantryman. Both arms might be insulted."

Major A.F.V.C.: "What about your led horses and your reduction in strength when dismounted?"

Major M.P.: "I thought you would say that—the led horses will be taken away to the safety of the road and led horse leaders act as road sentries. If you want more dismounted men to take the hill, you must use more and then do exactly what the infantry do, leave what is required on the hill and remove the rest. Those not required can remove the led horses of those left in the piquets, and these can be "ringed" in a safe place near the road and guarded by one or two men or road sentries."

Major A.F.V.C.: "How will these miserable horse soldiers get away? Surely you know the saying, that no spectacle is more pitiful than a dismounted cavalryman?"

Major M.P.: "Really—I think you are going too far in insulting the infantry. You surely do not think they will run away, down hill at that, faster than a cavalryman."

Major A.F.V.C.: "All right—but what about all the food required and these huge columns of transport?"

Major M.P.: "A good point, but cavalry in such warfare is moving slow and the marches are short. They must therefore carry more food on the horse. If infantry are saved the long treks to the foot of the hills by cavalry taking on some of them, piqueting the route should be quicker and less tiring. If you used mounted troops in this manner, the Pathan would surely find it harder to forestall you on hills further down the valleys. Like everything else on the Frontier there would be no routine use of cavalry for piqueting parts of the route. The Commander would ring the changes between the cavalry and infantry as it suited him. Would not our columns possibly get along quicker and so give more time for supplies to get through by day? Besides, aircraft can drop essential supplies in case of emergency."

Major A.F.V.C.: "You are the first cavalryman I have heard of who wanted to climb a hill."

Major M.P.: "I do not propose to do so; I hope I shall be able to send other people up; otherwise, I should never have raised the point. Besides you forget that an Indian cavalry officer accompanied an Everest Expedition. In any case we are fighting

for our existence, and you know how people stoop to conquer in such circumstances."

At this point Major A.F.V.C. might well be acquitted of justifiable homicide, and the conversation will now close.

It is now necessary to examine the question whether this re-organized Cavalry can carry out the varied tasks enumerated above.

Reconnaissance.—Various points have inevitably arisen during the discussion on terrain. It is a platitude to say that reconnaissance demands dispersion and detailed search, but can light tanks provide these two necessary ingredients of successful ground reconnaissance? Furthermore, will there ever be such a glut of light tanks as to be able to risk them running into ambushes of anti-tank weapons or concealed armoured fighting vehicle formations waiting to counter-attack, that India will be able to afford them for such tasks?

It is suggested that the mixing of horsed cavalry and armoured fighting vehicles inside the same unit provides:

(*a*) The necessary dispersion and power of detailed search.

(*b*) The mutual protection of each other, the cavalry being used to search country and protect the light tanks from ambushes, the light tanks protecting the cavalry against tank attack; providing at the same time an overwhelming threat to hostile reconnoitring troops, unless similarly organized with armoured fighting vehicles.

Together they should be able to drive in all kinds of hostile protective detachments and collect the essential "pin-pointed" information of paramount importance to the commander in rear. The tank wireless set can send back this detailed information obtained by horsed patrols. The cavalry, moreover, will provide the tank ground reconnaissance, and if tanks are contained in the unit, this reconnaissance will be done by professional as opposed to amateur tank liaison parties. When distant and rapid reconnaissance over suitable terrain is essential this might be considered a task justifying the risk of the loss of some tanks, whose wireless would again be of the greatest value.

Protection.—Protective reconnaissance will be similarly simplified. When the enemy is eventually met in such strength that the mobile troops cannot get on, suitable positions to assist the infantry forward might be seized with the assistance of light tanks

and held: or ground already occupied secured by the dismounted cavalry with confidence in their ability to resist attack by armoured fighting vehicles.

For rearguard work cavalry can hold ground, use their mobility and ability to conceal themselves and use covered approaches, even narrow ones, to bring overwhelming and sudden enfilade fire against the advancing enemy, whilst light tanks protect them from attack by armoured fighting vehicles; or, firing from concealed positions, make outflanking movements by hostile mobile troops more difficult.

As regards flank guards cavalry can secure the terrain in which tanks find movement difficult, the tanks being ready to deal with hostile tanks on ground suitable for attack. They would have a considerable advantage over the hostile tanks as they would be fighting over ground of their own choosing. Cavalry anti-tank weapons and a distribution of anti-tank mines should further simplify their task.

In outpost work cavalry must hold ground in anti-tank localities, ground over which hostile tanks can move being covered by anti-tank weapons, with tanks held in reserve for counter-attack or ambush on ground of their own choosing. Cavalry will provide the necessary standing patrols and night patrols before dawn.

Delaying action.—By judiciously ringing the changes and continually misleading and mystifying the enemy as to what he is likely to encounter next, *e.g.*, enfilade fire attacks by light machine-guns, long range fire ambushes, sudden counter-attack by tanks with or without cavalry, the mixed regiment should be capable of invaluable work, the tanks providing confidence in the ability to operate against hostile armoured vehicles.

Seizing and holding ground.—The same arguments apply as to delaying action and the action of cavalry in driving in the hostile protective detachments, but the inclusion of the light tanks does give the cavalry commander the option of using his tanks alone and well ahead if he considers the risk is justified.

To form a mobile reserve.—The value of a mixed regiment of this kind for stopping a gap in the defences, for prolonging a flank, or for counter-attack over all sorts of varying types of terrain is, it is suggested, self-evident.

Participation in battle.—It is not only conceivable but, it is suggested, probable that vital hostile localities on the flank and rear of hostile positions will be occupied and secured primarily with a view to defence against outflanking armoured vehicles. Attack on such localities by tanks would therefore be

suicidal. It is suggested that many occasions can be visualised where cavalry using their mobility and dispersion, and heavily supported by artillery and the fire of concealed tanks, could penetrate the crust of such localities and over-run the anti-tank defence, the tanks taking advantage of the temporary confusion of the enemy by pushing through and overwhelming less carefully co-ordinated anti-tank defence in rear. The commander would have to assess each case on its merit and decide whether he was prepared to accept the tank or the cavalry casualties.

For such operations cavalry need the most carefully organized training in clearing and consolidating localities, description of which would be outside the scope of this article. The pistol in the hands of men trained for many hours daily in its use would be of the greatest value in getting at hostile infantrymen taking cover behind low walls, cactus bushes, hedges, etc. It might possibly make the ranks in front feel a little insecure, but this would surely tend to make them close with the enemy as rapidly as possible.

Exploitation and pursuit.—It is suggested that the value of wide turning movements of hundreds of miles by mechanized units, whilst adhering to the doctrine of avoiding the parochial outlook, can be exaggerated. The distance to which a hostile force with modern weapons can be driven back by a force composed mainly of infantry must be calculable and limited. An attack hundreds of miles in rear, even supposing the enemy failed to destroy bridges and was completely surprised, must surely be regarded in the light of a raid rather than as enveloping pursuit, where the hostile forces are caught in the pincers between infantry advancing and mobile troops delaying. It is suggested that the distances to which the 11th Cavalry Brigade in Mesopotamia went at Khan Baghdadi and Shargat will still remain about the maximum, so long as the main portion of the Indian Army consists of infantry marching on their feet.

Special missions and raids.—Provided circumstances are favourable, here is undoubtedly a task on which fast moving tank formations have an undeniable advantage. Whether all these favourable conditions will be present it is impossible to foretell.

Operations on the North-West Frontier of India.—These have already been discussed in general terms by Majors A. F. V. Convert and Museum Piece.

Internal Security.—It is universally admitted that, except in cases of armed rebellion, tanks are the most unsuitable weapons for internal security duties. Cavalry by their mobility and power

to disperse, dismount, form cordons and carry out wide reconnaissance across all sorts of country are still of the greatest value.

The question of gas and its uses is so incalculable that it is difficult to grasp all its implications.

In the attack the enemy is obviously not going to spray with persistent gas those areas over which he hopes subsequently to advance. Well trained cavalry formations, not larger than a brigade, should be able to avoid low-flying gravity spray whilst on the move by using their mobility to gallop into the wind or, if a long way from the aircraft, away from it. Against bombs they are no more vulnerable than against artillery fire, again provided that they are trained to move widely dispersed in small parties. It is questionable whether an enemy would consider such small mobile targets worth while diverting his aircraft from their more important tasks of obtaining air superiority and bombing maintenance establishments which offer more tempting and less difficult targets.

Lastly, comes the low-flying attack against cavalry bivouacs. This again must be countered by dispersion and by moving bivouacs wherever possible after dark. An enemy would be optimistic if he hoped to confine his contamination to certain clearly defined areas by pressure as opposed to low-flying gravity spray.

As regards personal protection it is questionable if a cavalry soldier is as vulnerable to gas as an infantry soldier when on the move. When he detects gas contamination, provided he moves slowly, he should be able to pass through it without undue loss, if he carries the necessary bleaching ointment; in fact he can cross ground by application of the ointment, provided he washes the ointment off within half an hour, *i.e.*, he can cross a two-mile badly contaminated area without loss if it is not covered by fire. He is, it is suggested, invaluable for that very reason for carrying out gas reconnaissances.

But at this point, Major A. F. V. Convert makes his last attack. "How are you going to protect the horse from gas spray in bivouacs?" The answer is by concealment of bivouacs, by moving night bivouacs from their day localities and, lastly, by covering the horse over in a light oilskin and providing a gas mask for the animal. The horse will then be no more vulnerable than the man and the decontamination of his covering will present exactly the same problem as the man's covering.

The discussion of the effect of gas raises the interesting question as to why both the German and Russian Armies include large

numbers of horses in their establishments. This seems ever more astonishing when the fact is considered that the Russian Army contains many chemical warfare units and has studied the subject so thoroughly as to issue seventeen manuals on chemical warfare. The reasons must surely be that the Russians have realised the limitations of the tank in the face of anti-tank weapons in countries with indifferent communications and do not consider the danger of gas to the horse to be insurmountable.

It is felt that a discussion on the total mechanization of Indian Cavalry units cannot be complete without reference to the type of personnel now enlisted.

The *sowar* is essentially of the *zamindar* class. Education though steadily improving is still far below that of the British Army. Even the more highly educated British soldier finds it difficult to be fully conversant with map reading, machine-gunning, the use and upkeep of wireless sets and the care, maintenance and driving of armoured fighting vehicles. It is problematical whether the present type of *zamindar* in the Indian Cavalry would be able to overcome these difficulties. The remedy, alas, would appear to be to enlist a more educated type of man, but for this it will be necessary to go to the cities rather than the villages of India. The question must then arise whether these city-bred *sowars* will be able to give as good an account of themselves in action as the descendants of generations of fighting men.

Mechanical breakdowns must be frequent under the easiest circumstances in hot, dusty and sandy countries. It is easy to visualise the possibility of preventable breakdowns occurring in war if tanks are manned by any but the stoutest fighters.

It would, moreover, be impossible to prove whether these breakdowns were entirely genuine.

Every Indian Army officer must have experienced the difficulty of supplying signallers and machine-gunners to the headquarters squadron or company. If whole regiments are to be mechanized, it is easy to see the complications which might arise. On the other hand the supply of educated men of the right type to man one squadron of tanks within a regiment should be little more difficult than the supply of signallers and machine-gunners is to-day.

Suggested organization.—Some minor changes in uniform, armament and equipment have already been discussed; they are the substitution of loose canvas gaiters for tight putties, and the practical aboliton of the spur, so that the cavalrymen will be more mobile when dismounted, and able to climb hills; and the substitution of the revolver and short bayonet for the sword; the

former to enable cavalry to reach dismounted men behind cover; the latter for use at night, on the frontier and in dismounted action.

The major changes suggested are:

A.—That an Indian Cavalry regiment should consist of a headquarters wing, administrative group and signallers; one squadron of light tanks, which must carry anti-tank guns to deal with hostile armoured vehicles, three sabre squadrons, each consisting of three sabre troops and one light machine-gun troop of four guns, with tripods for fire on fixed lines.

B.—That an Indian cavalry brigade should consist of:

(*i*) A British cavalry light tank regiment to provide the offensive punch in the hands of the brigade commander;

(*ii*) Three Indian cavalry regiments organized as explained above;

(*iii*) A regiment of mechanized horse artillery, preferably carried in armoured trucks, rather than drawn by Dragons, for use on the Indian frontier in close support of the cavalry regiments.

A regiment has been included on the assumption that fifty light tanks will be as vulnerable to the fire of four anti-tank machine-guns as five hundred galloping and widely dispersed cavalrymen were to the fire of the two machine-guns which a battalion had in 1914.

(*iv*) One field troop chiefly mechanized but with sufficient mounted portions to be able to disperse when required in support of horsed cavalry, on which occasions they must obviously be as mobile as the cavalry they are accompanying.

Bridging material could be attached from army sources as required. A small quantity capable of getting a covering party rapidly across an unfordable river would be invaluable and would enable craft, which had been removed by the enemy to the far bank, to be collected and made up into heavy rafts for the carriage of guns, tanks and transport.

C.—The remainder of the brigade should be organized on the same lines as it now exists, but brought up to date by modernizing the veterinary section and providing dismounted men in lorries with long ropes for the evacuation of wounded horses.

The workshops would also need increasing to meet the extra demands of mechanization, and a petrol unit would be necessary. A decontaminating section might be formed by the addition of some pressure hose lorries on the lines of the equipment of a fire brigade.

D.—The addition to the British cavalry regiment of a number of amphibious medium tanks would obviously be invaluable and might be provided as funds became available.

A brigade organized as above would certainly need a second "Q" staff officer to cope with its administration.

Though admittedly more expensive, it is suggested that this force could perform efficiently all the tasks enumerated earlier in the article of which the most important must always be that of reconnaissance, for which purpose a purely mechanized brigade is most unsuitable.

The above organization has been based on the following premises:

Light tanks are more sensitive to ground than horsed cavalry and are unable to disperse sufficiently to carry out detailed reconnaissance or indeed even such ground reconnaissance as is a necessary preliminary to their own employment across difficult country at any time. They are not, however, sensitive to ordinary bullets and under favourable conditions are able to achieve great mobility and offensive power in the assault.

Horsed cavalry lack offensive power and are very vulnerable to the fire of all arms. On the other hand they have great individual mobility and power of dispersion, can carry out detailed reconnaissance, are almost insensitive to normal ground and can be trained easily to carry out the ground reconnaissance which is essential for the employment of tanks.

Horsed cavalry and light tanks are therefore not supplementary but complementary in all essentials, each being able to provide the other with the tactical requirements it lacks.

Over normal country in undeveloped parts of the world their mobility during continuous operations is about the same. They are therefore ideally fitted for close co-operation, one with the other.

A regiment composed partly of mounted squadrons, and partly of light tanks will have the virtues of both arms and the vices of neither. It is also surely the best organization to adopt during the present critical international period, as there will always be a large number of trained horse soldiers ready to take the field at any time with a trained reserve available.

Last, but not least, the Indian Cavalry would continue to be an attraction to the ambitious young officer who could join it to gain experience of modern weapons, whilst still being able to lead the happiest of lives on moderate means.

WALKING TOURS IN KASHMIR

By Major-General, R. J. Collins, C.B., C.M.G.

Having derived considerable benefit from reading one or two articles in the J.U.S.I. (India) on trout-fishing in Kashmir, it occurred to me that some notes on walking tours might not come amiss. While making no claim to be an expert, I have certainly learnt a good deal during two delightful holidays there.

A combined fishing and walking tour in Kashmir takes a lot of beating, as even the wildest enthusiast may tire of flogging the water for more than a week, especially if the fish are unresponsive. In 1937 we walked wherever possible from river to river, sometimes —as for example when moving to the Sind River from the Liddar valley—over the intervening mountain-range. Our party included fishermen, botanists and just plain walkers, and the holiday was all the more enjoyable for thus ringing the changes. The following hints will, I hope, save those contemplating similar trips, time, trouble and expense. I have often heard it said that walking in Kashmir is expensive if not prohibitive. That has not been my experience. In fact, if you move direct from one camping-ground to another, hire ponies for the few days' march entailed and camp for about a week, paying off the ponies at once and engaging fresh ones for the next move, it is cheap, actual living expenses being small. In any case, there are ways and means of keeping expenses down, as I hope to show.

Where to go

There are innumerable tours that can be made. Perhaps the best-known is that up the Sind valley to Sonemarg, an easy four marches, or three if one motors to the Wangat bridge. A week can well be spent at Sonemarg, in May or June one of the loveliest places in the world. The three streams that join to form the Bringhi, the Naubug, the Arun and the Desu, all flow through beautiful valleys, and can easily be explored from a central camp, say near Wiyul bridge. One can now motor to this, and in fact for some miles more up each of the valleys. There are also lovely walks to be found round Kokernag, where there is a charming Forest rest house. A visit to Verinag, for instance, where the Jhelum rises vertically from beneath a hill and flows through an old Moghul garden, makes a good day's expedition.

Slightly farther afield lies the Gurais valley, through which the River Kishenganga flows. This is three marches from Sonawain on the River Madmatti which cars, though not always lorries, can reach from Srinagar. This walk entails crossing the famous Tragbal Pass, some 11,400 ft. high, but the ascent by a well-graded path is easy. The Gurais valley rivals Sonemarg in beauty, either in June when the hills are covered with cream-coloured eremurus and the air is full of the aromatic scent of wormwood, or at the end of September when the silver birches and poplars are turning from green through bronze to gold, and the hills all round are covered with a powdering of fresh snow.

The Wangat valley, with its old Buddhist temples at Naranag, a day's march from Kangan on the Sind River, is also well worth a visit. Those prepared to face a stiff climb should walk from Naranag up to the sacred lake of Gangabal at the foot of Haramukh, and I will guarantee that they will find the effort well worth while. If that climb gives them a zest for more, they can go on over the shoulder of Haramukh down to the Erin and the Madmatti, two more lovely valleys. Or they can turn eastward, climb the Zagibal Pass (13,300) and come down into Gadsar, where there are two small mountain lakes, one a very beautiful shade of peacock-green. From Gadsar they can either return by Vishen Sar and Kishen Sar, two high lakes, to Sonemarg, or bravely face the Mashid Gali Pass (13,700) and, after a long and heart-breaking day, reach the River Kishenganga at Badogam.

From Badogam a delightful path follows the Kishenganga valley for some nine miles and then ascends the curiously named Achuh Chish Pass, a mere 11,400 ft.; passes north of Habkhatun, the conical mountain that dominates the Gurais valley and comes down at Chorwan onto the Gilgit road, which here follows the valley of the Burzil, with its deep bottle-green pools. From Chorwan one can either descend easily to Gurais or turn north and climb the Kumri Pass, 13,400 ft.—and a long, long climb it is. Thence, if you get there at dawn, you will be rewarded by a magnificent view of the ill-famed Nanga Parbat, only twenty-five miles off.

There is another lovely walk up the West Liddar from Pahlgam and over the Yamher Pass (13,400), with a rather steep descent to the Sind near Gund. But before leaving Pahlgam a day or two should be spent walking up the Shishnag or East Liddar, with its pretty upland valley, a perfect place in which to camp. While on the way up to the Yamher a halt should be made at Sekkiwas and a visit paid to the beautiful Tar Sar, another 12,000 ft. high lake.

There are also walks west of the Wular Lake, in softer and less wild and barren country, which has a charm all its own.

The above walks can be combined into a variety of tours suitable to one's pocket and to any period of leave.

When to go

It is hard to say which is the best time of year. In the spring the apricot-blossom fills the Vale of Kashmir with its foam of shell-pink and cream, the poplars are bursting into golden leaf, the iris is scattered over the fields and roadsides and the higher pastures break into a blaze of flowers as the snow melts. In autumn the lotus-flowers cover the lakes, the silver birch turns to gold, the chenars to every shade of red and purple, and the famous saffron-fields come into bloom on the Islamabad road. From the botanical point of view, there are more varieties of flowers to be found in the lower valleys in August and September; but from the 8,000 feet level upwards the greatest number will be found during July and August. It should however be remembered that many of the passes that I have mentioned are difficult, if not impossible, to negotiate before early August.

Planning a Tour

For the planning of a tour maps are essential, one-inch maps for choice, as it is not easy to read or to calculate distances with any accuracy on the quarter inch. The date of each map should be noted, as most are very antiquated, and tracks marked as fit only for coolies may to-day be good pack or even motor roads. The Route Book will also be found invaluable, though at times it passes without comment over some really rough ascents and descents. Its distances are, I fear, only too painfully accurate, though the steepness of the slope sometimes makes each mile feel like two. When crossing a pass of over 12,000 feet it is as well to allow a spare day, as rain may render the track temporarily impassable, at any rate with wet tents weighing double.

Dak bungalows and forest rest-houses can be booked in advance, though in the case of the former other travellers have a right to their share of the accommodation. The latter, too, may sometimes be commandeered over one's head by State officials. The forest rest-houses are nearly always delightfully situated and clean; but the *dak* bungalows vary greatly.

Transport

It is, of course, essential to the success of a tour that transport should be satisfactory. Personally I avoid the *tehkidar* whenever possible and make my own arrangements with the pony-men. When feasible I infinitely prefer ponies to coolies, but on some of

the passes the former cannot be used. On my last tour I arranged to pay as. 12 per animal for a normal march; as. 14 when a stiff climb was included, say a 3,000 ft. rise, and as. 6 for a rest day. It is more economical to make a circular tour, paying the pony-men off where they were engaged. Otherwise they are entitled to a half fare per day back to where they came from.

For a long halt, as for a week's fishing, it is advisable to make special arrangements. If the chance of picking up other loads is small, as for instance in the Gurais valley, the men will often gladly accept Re. 1 per pony for the week, and it is simpler, better for the ponies, and usually cheaper to keep them on. The men too can then help in getting wood and water. After a month's walking I gave each man Rs. 2 *bakhshish*, and an extra Rs. 2 to the head man. The proportion of men to ponies was one to five.

When it is cold or wet, it is advisable, other conditions being equal, to choose a camp not far from a Goojah settlement, as their huts provide shelter for the pony-men, who otherwise spend the night in the open air, not too pleasant above 10,000 ft. An occasional issue of matches and cheap cigarettes will do much to raise their spirits when their outlook is gloomy.

To take a riding-pony is a wise precaution; less to avoid fatigue than in case of a strained ankle or blistered foot, which might otherwise mean an enforced halt for several days. In any case the pony can carry mackintoshes or coats; and one's Indian servants are more efficient at the end of a long day if they have ridden for a time. I paid Rs. 25 for the month, with Rs. 5 to the owner, who helped a good deal with the camp.

Loads

For ponies it is as well to work to a two-maund* load. It is a wise precaution to allow one spare animal for every ten loaded, but do not be surprised if you find him loaded up. It is best to leave the distribution of the loads to the pony-men, who know to a pound or two what each animal can carry; but, to save time and trouble both when loading up and when coming into camp, insist on all tents and personal kit being put on one group of ponies, the mess tent, chairs, tables, crockery and food-boxes on another, and the servants' tents, kit and cooking-gear on a third. You will be surprised how difficult it is to get this simple common-sense arrangement carried out as the days pass. As a rough guide I have given in Appendix A a table of our loads for a tour. Some-

*160 lbs.

thing of the kind must be made out before you can calculate how many ponies you want and even then it is as well to have one or two extra standing by the first day, since bulk as well as weight has to be taken into consideration, not to mention the pony-men's food if you are going off the beaten track.

Food

Food must, of course, depend upon individual tastes and upon how much you are prepared to spend on luxuries. Again, only as a guide, I have given in Appendix B a list of stores for a party of three for three weeks. This is on a somewhat luxurious scale. Arrangements for daily supplies are made with the *lambardar* of each village. Milk is usually As. 2 per seer, and small sums are asked for wood, help in clearing the camp and odd jobs. Sheep can generally be obtained locally.

With regard to supplies, it must be realised that one's appetite rises above normal as one climbs higher and that this must be catered for. More sweet things are needed too as you go higher up; good honey can be bought from many of the villages, but sweets and chocolate should be taken, the latter from Nedou's Hotel, which makes it fresh. Arrangements can be made with an agent to send out vegetables and fruit from time to time, apples and pears may be bought in Srinagar in season and are a joy on trek, but should be specially packed in a wooden box. All stores should be personally inspected before starting to ensure that they are fresh, as Srinagar is full of old tinned food which is offloaded on the unwary.

Cars and Lorries

Motorable roads are steadily spreading over Kashmir, too much so to some minds, as one feels sad to think of the lovely valleys being desecrated by ramshackle buses. Still, motors and buses are useful in getting quickly to the more unsophisticated country. For instance, one is now saved that first dull march up the Sind valley. With care and skill trailers can be taken over nearly all the so-called roads, but it is as well to seek the advice of the experienced in Srinagar. The appalling price of petrol in Kashmir must also be taken into account. One last word of warning. A sudden spate and the washing away of a bridge may mean that a car on the wrong side is held up for weeks. This happened to a friend of mine last year and, having no driver, he was in a quandary. He had to return home by train and have his car driven down later by a driver of whose skill he was completely ignorant. A driver is a great asset, as camp may be some distance

from the road. Without one it is usually advisable to pay a villager a few annas daily to act as *chowkidar.*

Medical

A small medicine-chest is essential. Iodine-pencils and a good supply of Elastoplast are always in demand for cuts and blisters. Constipation seems a common complaint at higher altitudes, and should be guarded against. After a long day or a stiff climb five grains of aspirin on going to bed is valuable in reducing stiffness. Some people find difficulty in sleeping above 10,000 ft., and an innocuous soporific like Soneril comes in handy for dealing with this. Mosquito-nets should be carried, as though they are not often required there are dangerous areas.

Apart from personal medicines I always carry a supply of extra bandages, antiseptics, quinine, aspirin and "No. 9s." Nothing puts one so quickly on good terms with the local Kashmiri or ensures the provision of porters, ponies, wood and milk so well as a little attention to his sick. The position of the villagers is often pitiable, as they may be two or three days' march to the nearest dispensary.

Miscellaneous Hints

It is essential to see that one's tents are waterproof, as a leaking tent can spoil both one's possessions and one's temper. It is nearly as necessary to see that the servants' tents are also waterproof, as no cook will produce a high-class meal when wet and cold. We took an 80-lb. tent each, in which we could double up when necessary. As a mess-tent we had a small double-fly marquee for a party of five, and on wet nights when no other shelter was available the pony-men slept in this; and their saddles could be kept dry under its outer fly. Pegs seem to get lost and broken easily and a supply of spare ones should be taken. Incidentally, if a little trouble is taken at first to make the pony-men and Kashmiri servants pitch the tents properly, much damage to tents and loss of time and pegs will be avoided. Drains should be dug whenever the sky looks at all threatening.

Yakdans are far better than suitcases, being stronger and making better loads. These can be bought cheaply in Srinagar.

We took Roorkee chairs and a patent collapsible table made of three-ply. For rough work five-ply would be better. The Roorkee chairs need to be carried in a bag to prevent pieces being lost.

A "Lilo" can be taken, but a modern tubular steel camp-bed weighs very little and is a great deal quicker to put up.

At least one Petromax lamp should be taken for the mess-tent. This should be carefully packed in a box, with the necessary spare mantles. *Bhutties* should be carried by the servants to reduce breakages.

A pre-war entrenching tool, often obtainable for a few annas in the bazaar, is most useful for digging drains.

A supply of drinking-water should always be carried in petrol-tins in case the water at the next camp has to be boiled. A load of firewood should also be taken; and for the higher camps one or two *sigris* and some charcoal are welcome additions.

Rain comes suddenly, and it is advisable always to keep one's bed covered with a valise or a waterproof sheet in case of a leaking tent.

As to clothes: Mackintoshes are necessary. For the rest, shirts and shorts, or trousers, with several woollies, preferably cardigans, which are easy to put on and off while on the march, and can be tied round the waist when not worn. A scarf and gloves are needed. In the evening a greatcoat and thick clothes will be wanted—corduroy trousers were worn by most of our party—and, above all, warm socks and slippers or Gilgit boots; and lastly, a hot water bottle for bed. One pair of nailed boots or shoes is essential in case of snow; though these can be rubber-heeled. For the rest, hard composition rubber is good. I always walked in army socks. *Chaplis* are very well for those who are used to them; but novices will be wise to keep to their heavy shoes or boots.

I brought my own cook, bearer and sweeper; and all these must be fitted with good shoes, boots or *chaplis* and made to break them in first. They should also be given a government blanket, a sweater and a thick coat. I engaged two Kashmiri servants, one of whom was a factotum to run the camp, get coolies, interpret, pitch and strike camp. He was paid Rs. 20/-, and Rs. 5/- food allowance, and given a pair of *chaplis*. The second was an assistant at Rs. 15/- and extras as above. He hewed wood, drew water, did the baths and carried lunch.

Letters should be sent c/o Postmaster, Srinagar, who can be relied upon to forward them, and never to one's agent, who cannot. They should be sent on to local Post Offices, to the postmasters of which it is advisable to write before one's arrival. Letters can be fetched to camp by a *dak* cooly at as. 6 to 8 per day. He should always be given a little money in case of payment due on parcels or tax on letters.

You can hardly have too many thermos-flasks. Casualties amongst them seem to be severe however carefully they are looked after.

A lunch-basket with carefully-made carrying-straps is essential, and should be capable of holding a light lunch for the party as well as extra woollies and a book or two. With a midday halt for a meal and a rest one can generally time one's arrival at the new camp to coincide with that of the transport. This always seems slow in starting, but ponies at any rate, once off, maintain a steady pace without a halt for any march under twelve miles, and thus soon catch one up.

Khud sticks are a great help, especially when one has to drop three to four thousand feet straight on end, for they save the knee and leg muscles. They should be stiff and not too light, and the steel tip should be securely fastened and not too sharp.

The cheap blue army *dhurrie* is invaluable, not only by the bedside in a tent, but for protecting more fragile articles like folding table when on pack. Army waterproof sheets are equally useful, as thrown over a load they will keep it dry, and in camp can be rigged to make a useful shelter for the cook when at work. A repair outfit should be taken, especially if one intends to go far afield. It should contain such things as a screwdriver, hammer, screws and nails of various types, as well as copper wire, thread and adhesive tape for splicing, binding, etc.

Appendix A.

Table of Loads

Rough distribution of loads for a party of 5 with 7 servants, carrying 15 days' food for party and 10 days' for servants and pony-men.

Loads light in view of crossing three passes over 13,000 ft. high.

		Ponies.
5 tents (80 lbs.), less poles and pegs.		2½.
Poles and pegs for same.	..	1½.
1 dining-tent, poles and peg.	..	1½.
5 bedding-rolls	...	2½.
5 yakdans, tables, beds and chairs	...	3.
2 store yakdans.	...	1.
Petrol, oil, water and miscellaneous yakdan.	...	1.
Crockery.	...	½.
Cook's kit, oven, etc.	...	1
Kits of 7 servants.	..	3.
Tents for servants.	...	1.
Food „ „	...	1.
2 Latrine tents.	...	1.
Rods, fishing-gear, 4 dogs' kit, etc.	...	½.
	...	21.

Say 23 ponies, allowing 2 spare.

Appendix B

List of Stores for 3 people for 3 weeks

2	7-lb.	bags	Sugar.
3	,,	,,	Flour.
9	½-lb.	tins	Butter.
2	2 ,,	,,	Oatmeal.
2	2 ,,	,,	Golden Syrup.
3	1 ,,	,,	Marmalade.
6	1 ,,	,,	Jam.
3	1 ,,	,,	Cheese.
3	1 ,,	,,	Sausages.
3	2 ,,	,,	Biscuits.
3	22 ,,	,,	Fruit.
4	¼ ,,	,,	Ideal Milk.
1	1 ,,	,,	Cornflour.
1	½ ,,	,,	Baking Powder.
1	½ ,,	,,	Paisley Flour.
4		,,	Sardines.
1	½ ,,	,,	Cocoa.
4	1 ,,	,,	Coffee.
1	1 ,,	,,	Tea.
1		,,	Cerebos Salt.
1		,,	Mustard.
1		pkt.	Macaroni.
4	½-lb.	,,	Chocolate.
1		,,	Sunlight Soap.
1		,,	Lux.
2		,,	Matches.
1		bot.	Anchovy Sauce.
1		,,	Worcester ,, .
1		,,	Vinegar.
1		,,	Salad Oil.
1		,,	Vanilla.

1 bar Household Soap.
4 galls. Kerosene Oil.

MISCELLANEOUS SERVICE NOTES

THE ARMY IN ENGLAND

Territorial Field Army

On the 10th October the Secretary of State for War announced a complete reorganization of the Territorial Field Army. Under the Haldane scheme there were fourteen Territorial Force divisions. In future, there will be eighteen divisions, of which five will be anti-aircraft formations. The reorganization will affect both units and formations.

Unit Changes

Unit changes will be:

(*i*) The reduction of the infantry brigade from four battalions to three and the introduction of the modern organization, already in being in the Regular Army and based on the light machine-gun battalion in place of the old mixed battalion.

(*ii*) The introduction of machine-gun battalions.

(*iii*) The adoption of the new artillery organization of field regiments, batteries and troops.

(*iv*) The re-equipment, or conversion, of certain existing units to provide cavalry light tank regiments, anti-tank and anti-aircraft regiments R.A., tank and motor cyclist battalions.

Formation Changes

Territorial Field Formations will be reorganized to provide:

(*i*) Nine divisions, organized on the same pattern as Regular Army divisions, each consisting of three brigades of three battalions and divisional troops.

(*ii*) Three divisions of a new pattern, each of two brigades of three battalions and divisional troops. These divisions will mobilize as motorised divisions and will be given increased transport in peace. Each will include a motor cyclist battalion.

(*iii*) The units earmarked to form a Mobile Division on mobilization, though no Mobile Division headquarters will be formed in peace.

(*iv*) The necessary corps and army troops, most of which are already in existence but to which will be added: tank battalions, anti-tank and anti-aircraft regiments.

No existing unit is to be disbanded and Territorial divisional boundaries will remain the same. Two Yeomanry brigades and ten regiments of horsed cavalry will still be at the disposal of the Army as a whole to form a reserve of horsed cavalry.

The proposed reorganization will absorb all existing infantry battalions of the Territorial Army, which will be given a similar organization to the Regular Army.

Auxiliary Territorial Force

His Majesty has approved the raising of a new Women's Auxiliary Territorial Force with the object of freeing men for combatant duties in emergency. The number of women required initially is 25,000 and the categories to be raised will include motor drivers, clerks, cooks, orderlies and women for general duties. Women will be required to attend ten drills a year and camp for between one and two weeks in alternate years. Particulars can be obtained from Territorial Army drill halls.

Section "E," Army Reserve

The number of warrant and non-commissioned officers required by the Army on mobilization; especially for units which do not exist in peace, has for long been in excess of those which could conveniently be provided from peace establishments of existing units, from which they could ill be spared in any case. To meet this deficiency the Army Council have introduced a new section to the Army Reserve. Section "E" will be open to pensioned warrant and non-commissioned officers, provided they are resident in the United Kingdom and medically fit. Pensioners who have been away from the colours for over four years will not be eligible to enlist.

Enlistment into Section E and re-engagement will be for a year at a time, with pay at 9*d*. a day. Every man will be allotted to a specific mobilization post, and when he is called out will draw his pension concurrently with his pay. Applications to enlist in this section from serving warrant and non-commissioned officers should be submitted through commanding officers of units.

Officers' Emergency Reserve

The object of the Officers' Emergency Reserve is to enrol men of middle age who possess technical, academic or other qualifications and who are prepared to present themselves for military service in national emergency. Their names, addresses and qualifications will be registered at the War Office and there will be no limit to enrolment. Among the various qualifications required are engineering of all sorts and such occupations as architects, chartered accountants, barristers and solicitors, dentists, chemists, journalists and customs officers. Men proficient in foreign languages, or with a knowledge of sea or rail transport, or of foreign countries, will be particularly acceptable. Copies of application forms may be obtained from command and area headquarters, Territorial Army units or direct from the War Office.

Warrant Officers' Class III

About a thousand non-commissioned officers were promoted to Warrant Officer, Class III, on the 1st October. They were the first of those men from the ranks, of special character and ability, promoted to command platoons and equivalent units hitherto commanded by subaltern officers. Warrant Officers, Class III, will not only be trained in tactics, the use of weapons and administration as lieutenants have been in the past, but will be available for a host of miscellaneous duties such as regimental and garrison boards, courts of inquiry, orderly officers, the handling of money and the paying of the men. The new title of these officers is "Platoon" (or Section, etc.) Sergeant-Major.

Infantry Nomenclature

A new nomenclature has been introduced to denote the three different types of infantry. The home service battalions of the King's Royal Rifle Corps and the Rifle Brigade are now motor battalions. Units organized as machine-gun battalions are designated as such, their depots being termed machine-gun depots. The remaining rifle battalions are called infantry battalions.

THE ARMY IN INDIA

The Chatfield Committee

The expert Committee on Indian Defence, 1938-39, which commenced its sittings in New Delhi in November was composed of: Admiral of the Fleet—Lord Chatfield, chairman; Sir Ernest

J. Strohmenger; Major-General Sir B. N. Sergison-Brooke; Air Vice-Marshal C. L. Courtney and Major-General C. J. E. Auchinleck. The secretaries and assistants to the Committee were Mr. S. K. Brown, India Office; Mr. M. J. Dean, Air Ministry; Paymaster Captain R. C. Jerram; Mr. A. J. Newling, Finance Department of the War Office; and Major P. R. Antrobus, R. E., General Staff, India.

The terms of reference of the Committee are:

"Having regard to the increased cost of modern armaments, to the desirability of organizing, equipping and maintaining the Forces in India in accordance with modern requirements, and to the limited resources available in India for defence expenditure, to examine and report in the light of experience gained in executing the British rearmament programme how these resources can be utilised to the best advantage, and to make recommendations."

It is expected that the Committee will complete its report by about April this year.

Promotion Examinations

Certain major changes in the syllabi of officers promotion examinations are to be introduced in March 1939. The changes in the examination for promotion from lieutenant to captain are of a permanent nature, those in the examination for promotion from captain to major are temporary, pending the establishment of an officers tactical school referred to below.

Lieutenant to Captain

The syllabus for the promotion examinations from lieutenant to captain will be:

(*a*) A two-day practical examination in tactics and administration, syllabus as detailed in King's Regulations, 1935.

(*b*) (*i*) Part I.—Organization and Administration; a written paper as detailed in King's Regulations, 1935.

Part II.—Military Law, as detailed in King's Regulations, 1935.

(*ii*) Development and Constitution of the British Empire and Imperial Military Geography, syllabus as detailed for captains to major in King's Regulations, 1935.

Captain to Major. (Pending introduction of Tactical School.)

(*c*) A two-day practical examination in tactics and administration, syllabus as detailed in King's Regulations, 1935.

(*d*) (*i*) Part I.—Organization and Administration; a written paper as detailed in King's Regulations, 1935.

Part II.—Military Law, as detailed in King's Regulations, 1935.

(*ii*) Development and Constitution of the British Empire and Imperial Military Geography as at present.

(*iii*) Training, as detailed in King's Regulation, 1935.

The changes involved in the new syllabi are the abolition of the written papers in military history and tactics. The study of military history will in future be conducted under Command arrangements during the individual training season and will be based on the campaign set for study in the hot weather. The object of the changes is to abolish the somewhat academic features, especially in the tactical papers, of written promotion examinations.

Tactical School for Officers

The institution of a Tactical School for captains and the abolition of the Senior Officers' School at Belgaum have been approved in principle by His Excellency the Commander-in-Chief. It is hoped to open the former in 1940, in which event the last course at the Senior Officers' School will take place in the autumn of this year.

Object of the School

The objects of the new Tactical School will be to:

(*i*) disseminate sound tactical principles as laid down in the official manuals, and so ensure uniformity of method in their application throughout the Army;

(*ii*) teach officers how to instruct and give them practice in the preparation and conduct of tactical exercises;

(*iii*) instruct officers in the administration of a battalion or equivalent unit, according to the arm of the Service to which they belong;

(*iv*) give officers of all arms an opportunity to exchange ideas on matters connected with the training and administration of units, and

(*v*) test the fitness of individual officers for promotion to field rank.

Officers to Attend

All combatant officers of the Indian Army and of the British Service in India (unless they have passed through an equivalent school at home), who have not passed the Junior Wing of the Staff College will attend. It is anticipated that there will also be a limited number of vacancies for officers of the Indian Medical Service and Indian Army Ordnance Corps. A regular officer who fails to qualify on a course will be permitted to attend a second course, should such attendance be in the interests of the Service.

Length and Scope of the Course

The scope and syllabus of the course will be based on that at the Senior Officers' School and will be:

Theoretical tactical instruction (lectures, discussions and model demonstrations);

Practical tactical instruction (the setting and conducting of T.E.W.Ts. and solution of tactical problems on the ground and on paper);

Unit administration in peace;

Law;

Maintenance in war; and

Outside lectures and lectures by student officers.

Indian General Service Medal

His Majesty the King has been graciously pleased to approve of a new medal being struck to commemorate military operations in or on the frontier of India, to take the place of the medal instituted in 1909. The new medal will be known as the Indian General Service Medal, 1936, and will have a distinctive ribbon with khaki centre, flanked on each side by a narrow white stripe and edged with broader green stripes.

Vacancies at the Senior Officers' School

Vacancies at the remaining courses at the Senior Officers' School, Belgaum, for British Service officers will be allotted to non-p.s.c. majors commissioned before the 31st December 1921 and having at least eighteen months' service in the rank. About fifty vacancies remain to be allotted this year.

British Service Staff Officers

The tenures of staff appointments in India of British Service officers were reduced to three years on 1st August 1938. An officer who had completed three years on that date will finish out his

original tenure; an officer who had completed between two and three years will be required to vacate on the 1st August 1939.

As regards furlough, an officer who, on the 1st August next will have—

(*i*) completed less than three years will be entitled to a total of four months' furlough from his appointment,

(*ii*) completed three years, but less than three and a half years, to a total of five months' furlough, or

(*iii*) completed more than three years and six months to a total of six months' furlough,

combined in each case with any privilege leave which may be due to him.

Indian Army Promotion

With a view to coming into line with the new terms of service in the British Army, it has been decided that promotion in the Indian Army will in future be:

Second-lieutenant to lieutenant	...	at $2\frac{1}{4}$ years' service.
Lieutenant to captain	...	at 8 years' service.
Captain to major	...	at 17 years' service.

No change in the system of promotion to senior ranks will be made.

Furlough Accommodation

Warrant officers, N.C.Os. and men can be accommodated at the Soldiers' and Airmen's Christian Association Soldiers' Home at Agra for Rs. 2/- a day. Accommodation for married families is available at Rs. 2/8 a day. Applications should be made to the Superintendent, 201 Station Road, Agra.

Services Sports Diary

The Services Sports Diary, 1939, is on sale in two editions, at 2*s.* 6*d.* and 6*s*, with postage at 5*d.* a copy.

The publisher is the Secretary, Army Sports Control Board, 59 Palace Street, London, S.W. 1.

LETTERS TO THE EDITOR

The National Rifle Association

Dear Sir,

May I draw the attention of your readers to an organization which plays an important part in our national defence.

The 1938 Bisley meeting of the National Rifle Association was the seventy-fifth of a series which has suffered but a single break, the four years of the war, since its inauguration in 1860. These annual meetings are sometimes regarded as merely sporting affairs but they are more than that since they provide training for defence and opportunities for intercourse between citizens from many parts of the Empire, as well as facilities for taking part in the interesting pursuits of rifle and revolver shooting and clay-bird shooting with a smooth-bore gun. Bisley, moreover, provides competitions which it is a distinction to win and so focusses the attention of marksmen throughout His Majesty's dominions on the latest developments in rifled fire-arms. One often hears it said, and truly, that Bisley is the "Mecca of the marksman."

The National Rifle Association owed its foundation in no small measure to a nation-wide feeling of insecurity following on the muddles of the Crimean War and in the words of Lord Elcho, one of its prominent founders, its object was "to make every man a skilful marksman and every citizen a soldier." Officially the Association was intended to "give permanence to the Volunteer Corps and to promote rifle shooting throughout Great Britain;" and when it grew to become the parent organization fostering rifle shooting in the British Empire, the words "Great Britain" were changed to "the King's Dominions." To attain their ends, the early members of the Association decided to convene an annual competition extending over several days and it was planned to hold the "Rifle Derby," as it was called, in a different part of the country each year, with every third meeting in Scotland. But the enormous amount of equipment of a semi-permanent nature required on large rifle ranges soon proved the idea of a movable meeting to be impracticable. Still, training in shooting immediately evoked enthusiasm and throughout the sixties the strength of the Volunteers was maintained at about 120,000 officers and men. In those days the annual shooting

meeting was wound up with a field day or review; for example, in 1861 there was a review of twelve thousand volunteers witnessed by sixty thousand spectators.

The foundation and progress of the Association were due to public spirit, and although the Association now receives a grant from, and is closely related to the State, it has never been controlled by a Government department. To-day His Majesty is patron, H.R.H. The Duke of Gloucester is president, and many of the *ex officio* vice-presidents hold high rank in the Navy, Army and Air Force. The Secretaries of State for the Dominions and Colonies and the High Commissioners in London of the Dominions and India are invited to become *ex officio* vice-presidents and to act as members of council as a matter of course.

The main activities of the Association are directed towards developing proficiency in the use of small arms for purposes of national defence, and the competitions are kept constantly under review so that they shall remain in conformity with advancing military requirements. For consultative purposes the Association has access to the civilian and professional heads of the Admiralty, War Office and Air Ministry, the naval and military Officers Commanding-in-Chief at home stations and the Lords Lieutenants of Counties, in their capacity as presidents of Territorial Army Associations.

The first annual shooting meeting of the Association was held on Wimbledon Common in 1860 and for the next thirty years the venue remained the same. But by 1890 the "Rifle Derby" had outgrown the accommodation available at Wimbledon and the meeting was changed to Bisley. In the same year the Association was incorporated by Royal Charter. How great has been its development is shown by the following figures. The programme of the meeting in 1860 contained only nine separate events and provided for sixty-seven prizes, forty of which—to a total value of £1,288—were open to "all comers" and twenty-seven—valued at £950—reserved for volunteers. The competitors numbered seven hundred and twenty "all comers" and five hundred and ninety-four volunteers, while the entrance fees amounted to £1,380. Last year there were one hundred and twelve events and over six thousand prizes. These prizes were presented by the Association and many private donors and took the form of cash, cups, medals and badges of merit to the value of £10,723. To that figure must be added £8,805, the value of the permanent challenge cups

and trophies which winners retain in their keeping for twelve months. Forty-four thousand five hundred competitors took part and the entrance fees amounted to £13,598.

On the inception of the Rifle Club movement in 1900 the National Rifle Association undertook, at the invitation of the War Office, to organize the clubs; and of the many rifle clubs existing to-day in the Empire, there are four hundred and fifty in the British Isles and fifty overseas affiliated to the Association. Every year the Association presents these affiliated clubs with some six hundred and fifty medals and badges for proficiency in shooting, as well as two hundred odd certificates.

The encouragement given by the Association to young citizens may be gathered from the fact that between thirty and forty thousand boys, between the ages of twelve and nineteen, compete annually for that coveted prize, His Majesty the King's Trophy.

Yours faithfully,

T. W. MACALPINE.

DEAR SIR,

The other morning, while I was having my breakfast, there entered a rather heated and slightly excited young officer who remarked, "You know, I do not think they will ever get this new timing."

I saw looks of consternation flit across the faces of my fellow breakfasters; whether this was due to a sense of outrage at this military solecism or to their own ignorance of the new timing I shall never know. I had, myself, spent part of my morning watching the adjutant, the jemadar-adjutant, a man with a drum and the subedar-major, standing slightly apart as if to dissociate himself from my responsibility, drill ten naiks. The parade did not seem to be going well, except for the drum, and I passed on, only to hear of the result later at breakfast.

What had happened was that after a year of very active field service the commanding officer had decided that the timing of the rifle exercises was too fast, and a slightly reduced timing was to be introduced. Now, I can assure you that the time, damning and devotion to duty spent on learning this new timing of rifle exercises ran into many hours. The other day this unit returned after a year of active service, about three weeks before the New Year's Day parade. What was wanted, of course, was a few weeks' rest for the men, a rest of mind and body from all things military, as far as that is ever possible, a rest which would have been of the greatest value to fighting efficiency. But no, we have always maintained a very high standard on the parade in question, and so it was decreed—and rightly so—"to get down to it." It actually rained on the great day and to everyone's unconcealed joy the parade was cancelled.

You will realise by this time that I think too much thought and time are spent on drill. In these days of rapid modernization and new weapons there is hardly enough time to teach all that is needed to turn a unit into a reasonably efficient fighting machine for war. There is no branch of training which makes for fighting efficiency in which drill of some sort is not required, if a soldier is to be proficient in the arms he must use. In battle a soldier should be able to use all his weapons intelligently and automatically, and nobody will deny that to reach such a standard a considerable amount of drill is required; and with drill discipline is naturally acquired.

There has been a great deal heard lately about new drill. Let there be a new drill, with no half-hearted measure about it, and let it be the minimum. A soldier should be smartly turned out and have a soldierly bearing. He should be able to march in fours, turn his head smartly to the right and left and salute; stand in line and have his arms inspected, slope and present arms. What more is wanted? But believe me, in spite of it all, there will still be harassed adjutants trying to get the "timing" right. "Bless them."

Yours faithfully,
SPERO MELIORA.

DEAR SIR,

A recent India Army Order, No. 872 of 29th August 1938, dealt with the revised rules for British income-tax and their application to officers in India.

Like most income-tax regulations, they require an expert to elucidate their exact significance and to point out to officers how they may not dodge them, but apply them to their own case, in the way most suitable to them.

Might I suggest that it would be most helpful to all officers if an expert in income-tax matters might be induced to write for the journal, a short article, explaining these regulations and their effect. Simple examples would help most of us to an understanding.

Yours faithfully,
R. G. MOUNTAIN.

REVIEWS

THE RETENTION EXAMINATION AND HOW TO PASS IT

By Lieutenant-Colonel G. E. D. Mouatt, D.S.O. (*Indian Army*)

Revised and corrected up to 1938

By Major G. A. I. Sanders (*Indian Army*)

The object of the Retention Examination is to ensure that all officers appointed to the Indian Army are, within three years of their appointment, thoroughly proficient in matters of regimental routine and so qualified as efficient regimental officers. All officers appointed to the Indian Army or transferring to the R.I.A.S.C. must pass the examination within three years. Failure to do so may lead to removal from the Service.

"The Retention Examination and How to Pass It" deals with some of the written and oral parts of the examination and selects—

(1) Regimental duties in organization and administration.
(2) Military Law.
(3) Weapon Training.
(4) Horse Management (for cavalry officers).

The book was written in 1924 but has recently been revised. It is doubtful whether it is possible to revise and bring up to date a book of this nature which was written fourteen years ago. Herein lies the danger of young officers obtaining out of date and, therefore, false information. The chapters on "Discipline and Interior Economy" and "Indian Military Law" have been examined by legal experts and found to contain many errors. In these days of frequent changes in organization, it would be very difficult or even impossible to keep this book amended and up to date and thus not dangerous. Officers seldom have the time or inclination to do so.

A *vade mecum* of this type rather defeats the purpose of the examination for which it is designed to help officers. Young officers, relying on its accuracy, are inclined to regard it as an easy short-cut to knowledge, obviating the tedious but more thorough and lasting benefit which they obtain through making themselves acquainted with the official manuals.

T. R.

LEE, GRANT AND SHERMAN

By Lieut.-Colonel Alfred H. Burne, D.S.O.

(*Aldershot. Gale & Polden, Ltd.* 10*s.* 6*d.*)

The author outlines the operations of the American Civil War from April 1864 until the final surrender of the Confederate Armies and comments on a number of army and corps commanders, of both sides. He explains that the title of his book has been suggested by the fact that three notable books have recently been written, each by a military expert, on Lee, Grant and Sherman individually and that the aim of his book is to try and strike a balance between the rival protagonists.

The book opens with explanatory and bibliographical notes, both of which are most useful and should be read with care. Chapter I deals generally with the causes of the war and leads up to the situation in the spring of 1864. Chapters II to VIII describe the Wilderness Campaign which brings out the comparative values of Lee and Grant. Chapters IX to XV are devoted to Sherman's operations against Hood and Johnston and give us a clear insight into Sherman's character. The remaining chapters describe Early's campaign in the Shenandoah Valley during the latter half of 1864 and the operations in the West which led to the surrender of the Confederate Armies. The sections on the rarely studied campaigns of Generals Hood and Early are a useful contribution to the literature on the American Civil War. In the last chapter, the author assesses the comparative military abilities of Lee, Grant and Sherman and finally states that "the student must feel that the military leader *par excellence* is Robert E. Lee."

The author is a master of the detailed facts of his subject and, from his study on the ground of the battlefields of the Civil War, has put renewed life into the actions which he describes. His style is excellent; he avoids that detail which often requires such efforts of concentration in the study of military history and yet omits none of the important moves and facts which lead up to the climax of the various battles. The value of his story is much enhanced by the many clear sketch maps, all of which are conveniently placed in the book and can be followed with the minimum disturbance to reading. A chronological table is provided at the end, designed to convey to the eye a swift and proportionate picture of the whole vast war theatre of the 1864-65 campaign; this is followed by a most useful index. The whole

book, in fact, is well organized and makes clear and interesting reading.

Colonel Burne has expressed opinions which are both refreshing and original but which, as he himself points out, often run counter to generally held views. His conclusions, however, are based on his own opinions of the facts he adduces and, whether right or wrong, will provide readers with ample food for thought. In his criticisms he has endeavoured to be scrupulously fair and has paid little attention to the volume of opinion expressed since the war or the bias which ultimate success gives to the study of the life of any commander. He is, however, in places inclined to blame commanders for mistakes caused by bad staff work over which they seem to have had very doubtful control; his conclusions and comparisons in regard to commanders are also open to criticism in places. The miscarriage of General Hood's orders at Spring Hill surely denotes the necessity for a well-trained staff; it scarcely debars all soldiers with physical disabilities from responsible commands. Headaches, too, are not an entirely satisfactory basis for comparison between generals, even when they are prone to this unfortunate malady. The final chapter contains an interesting attempt to express the value of moral and other indirect factors in rifles and bayonets.

The outstanding characteristics of this book are candour, fair and unbiased criticisms based on personal opinion and a style and general arrangement which much facilitate the study of the campaign. It is an undoubted contribution to the critical histories of the 1864-65 campaign and will well repay careful study.

W. H. G. B.

WAZIRISTAN 1936-1937

By Lieut.-Colonel C. E. Bruce, C.S.I., C.I.E., C.B.E., O.B.E.

(Gale & Polden, Ltd. 3s. 6d.)

In this little book the author, who spent many years on the North-West Frontier of India, as did his father before him, presents the problems of the Frontier and his solution to them. The reader may not agree with the policy he advocates, but undoubtedly it provides food for thought and is therefore well worth studying.

Lieut.-Colonel Bruce is a great believer in Sir Robert Sandeman's policy, which has successfully stood the test of time

in Baluchistan. He maintains that it was the successful working of this policy which kept Waziristan quiet from 1922 to 1933, and that the present disturbances which started in 1936 are due to weakness in carrying out the Sandeman policy.

In comparing the problems of Waziristan with those which faced Sir Robert Sandeman the author ignores certain factors which make the pacification of Waziristan an infinitely greater task: The armament of the tribesmen in Waziristan is far superior both in make and numbers to that of the tribesmen in Baluchistan when Sir Robert Sandeman started his policy of peaceful penetration. Also, ammunition is both cheaper and more plentiful. The task of dealing with the tribes through their headmen is easier in Baluchistan, where the headmen have always been more powerful and controlled much larger areas than those in Waziristan, where the headmen are legion and, in some cases, have little real control. In Waziristan the tribesmen are often made hostile to us by Afghan allowance holders, *i.e.*, tribesmen who live on our side of the border, and for past services receive an allowance from the Afghan Government. This allowance makes them independent and, therefore, difficult to control.

While everyone will agree with the author that we must protect the tribes if we disarm them, many will disagree with his view that disarmament should follow pacification.

The chapter suggesting the way in which the outlaw problem should be dealt with is convincing and of particular interest, as during the last two years villages in the settled districts have been raided frequently, and there is no doubt that on most occasions the raiders have been assisted by local inhabitants.

G. L. T.

GERMANY AND A LIGHTNING WAR

By Fritz Sternberg.

(*Faber and Faber, Ltd., 24 Russell Square, London;* 12*s.* 6*d.*)

This is a book of considerable interest to the serious student of war—particularly of the next war. It is not intended to be a strategical study, but an analysis of the material resources available to Germany and to her probable allies and enemies. It is based on the text that "God is now on the side of the battalions with the biggest production of iron and steel in support;" and it is definitely not a book for the bedside or the idle hour.

The book may be conveniently divided into two parts: Dr. Sternberg's opinions on the certainty of a social revolution in the near future, not only in the Fascist countries, but also in the great western democracies; and Dr. Sternberg's careful and detailed examination of the evidence bearing on the alignment and "war potentials" of the opposing parties in the next world war.

Dr. Sternberg believes that capitalism is doomed, and that it is the armaments race alone that is keeping this system on its feet—and that with difficulty. This part of the book was above the head of the reviewer who, frankly, found it unconvincing and rather too obviously coloured by Dr. Sternberg's own political views and based on his own reading of social and economic tendencies which have never yet been adequately understood or explained.

When he comes to the other part of the book, however, the reader cannot fail to be impressed by the imposing mass of detailed evidence that Dr. Sternberg has produced in support of his argument that Germany's only hope in a future war is a swift and smashing success—and that the existing and potential resources of Germany and her probable allies *vis-a-vis* those of her probable opponents, make such a success well-nigh inconceivable. His method is to compare, item by item, the components that make up the "war potential" of all the possible belligerents, as they stood in 1914 and as they stand to-day. The evidence is authoritative, detailed and well handled; and his conclusion is that Germany has less chance of a quick victory to-day than she had in 1914—and no chance at all of victory in a lengthy war. All his evidence is from sources readily available to the German General Staff and, in the interests of world peace, it is to be hoped that they have studied this evidence and have arrived at the same conclusions as Dr. Sternberg.

The diagrams and charts with which the book is illustrated are unusually clear and intelligible; and the translation, by Edward Fitzgerald, is so well done that the reader would seldom suspect that the book had not been originally written in English.

D. F. W. W.

AN ATLAS OF FAR EASTERN AFFAIRS

By G. F. Hudson and Marthe Rajchman

(*Faber and Faber.* 7*s.* 6*d.*)

The stated purpose of this book is to provide, by means both of the text and the maps, a background to the study of events in the Far East.

The development of trade routes, the lands and the people, and the story of the activities of the European races in China, each receive a chapter with complementary maps. The history of the Manchu Empire and the Chinese republic is then traced, as is the expansion of Russia eastwards and of Japan southwards and on to the mainland of Asia. The remaining chapters deal with the conflict between these three powers in the Far East and with the southward policy of Japan.

The text, for which Mr. Hudson is responsible, gives as accurate a bird's-eye view of the history and development of the Far East as is possible in so small a compass. It is a little unfortunate that his convincing arguments as to why Japan would not attempt to capture Canton should have been proved wrong so quickly.

The maps, of which there are thirty-three, are Miss Rajchman's contribution. They are excellent, amplifying the text and, in themselves, constituting a satisfactory basis of fact for the study of events in the Far East.

A. D. W.

THROUGH THE FOG OF WAR

By Liddell Hart.

(*Faber & Faber.* 12*s.* 6*d.*)

Captain Liddell Hart's latest book does not deal, as its title suggests, with the difficulties which a commander experiences in discovering what is happening on the other side of the hill, but rather with the artificial fog raised after the war by the military and political leaders on each side, in an attempt to justify their actions. He maintains, repeatedly, that military history can only be accurately written by the professional historian, who alone is unmoved by sentimental encumberances of kinship, friendship or discipleship, and it is a pity therefore that in his efforts to prove the incapacity of the military leaders of the Allies he should present

so one-sided a picture and that he consistently neglects to give, in proper perspective, the arguments which may be urged in favour of other policies than his own.

The book is mainly a study of personalities and as such must be of value to the military student, since the personality of a commander may exert more influence on the result of a campaign than any other factor. The author's theory, which may not commend itself to soldiers, that far more can be learned from failures than successes results in the presentation of a rather gloomy picture from which it appears that nearly all the military leaders in the Great War, with the notable exception of Lawrence of Arabia, were fools if they were not knaves. Haig is the principal villain of the piece, and Captain Liddell Hart does not hesitate to repeat twice the story that, to prove his statement that the morale of the German Army was deteriorating, Haig showed Lloyd George a prisoners-of-war cage from which, by his own instructions, all able-bodied prisoners had been removed.

There is much in the book of interest and the history of the war given in the first chapter is a particularly brilliant piece of condensation, although this too suffers from the author's habit of quoting as facts matters which are still controversial.

P. R. A.

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EDITORIAL

Once again as we go to press the map of Europe is changing. It remained apparent after Munich that further aggressive moves must be expected and the tempo of re-armament continued to increase in most countries. Herr Hitler's latest coup has, however, come as a surprise to many.

After the events of last autumn the now non-existent Czecho-Slovakia became virtually a vassal state of Germany whose policy seemed directed south-eastward. Hungary, though resisting Nazification, was absorbed into the signatories of the anti-comintern pact and was not then allowed to annex her former territory of Carpatho-Ruthenia, which is economically one with the Hungarian plains to the south. Carpatho-Ruthenia was a nucleus on which an Ukrainian state might be constituted, and Germany making use of the watchwords of nationality and self-determination which had been employed against her at Versailles (and which she has now once more discarded), gave encouragement to the formation of such a state. A confidential Ukrainian bureau was set up in Berlin and there were rumours of military training for the stateless Ukrainians who registered there. These activities led to signs of a rapprochement between Poland and Russia: non-aggression and other pacts were renewed. But after Colonel Beck's visit to Herr Hitler and Herr von Ribbentrop's to Warsaw, it was decided that there was to be no immediate move for the creation of an

independent Ukraine. In fact it would be an impossible task without lengthy preparation. The Ukraine stretches from Brest-Litovsk to the Black Sea and from eastern Czecho-Slovakia to the Sea of Azof, and includes territory now in Poland and Rumania as well as the Soviet Union's most fertile area, the Donetz coal-field, iron fields, industrial centres and her most important sea-board. It appeared at that time that Germany's object in raising the question was to provide herself with a bargaining counter to ensure herself a free hand in the west.

In his speech on 30th January, the sixth anniversary of the Nazi accession to power, Herr Hitler said little that he has not said before. The return of her colonies moved into the place of Germany's last territorial claims. These claims were described as capable of peaceful settlement. Nazism was still not for export. World dominion and war were still not Germany's aims. The more alarmist prophets appeared to be belied. But an event which gave rise to a good deal of conjecture followed. Dr. Schacht and some of his colleagues were removed from the Reichsbank, which is henceforward to be completely subordinated to the sovereignty of the state with a programme with which even Herr Funk, the new President, should be puzzled to comply. This change removed the last brake which financial orthodoxy might impose on the progress of re-armament, on the five-year plan and on the drive by any method for export trade. It also weakened moderating influences in foreign policy and left Herr von Ribbentrop in virtually full control. Further adventures to distract attention from the increasingly severe economic conditions to which the German people are to continue to be subjected might safely be predicted.

The first of these has now taken place. Czecho-Slovakia no longer exists. Bohemia and Moravia are incorporated in Greater Germany and so is Slovakia. Carpatho-Ruthenia has been overrun by Hungary. With the information at present available, comment must be premature. Herr Hitler appears to have triumphed once more. The democracies may protest; but they can take no action to prevent an accomplished act. What they can do is to prepare with the greatest possible urgency for the day when they will be compelled to resist in defence of objectives vital to themselves. The next move may be against the common Polish-Hungarian frontier, which Herr Hitler previously

forbade: or it may be westward in conjunction with Italy and in furtherance of colonial claims which have been sedulously voiced from time to time. Herr Hitler has made a pledge to Italy which has been variously construed as an unconditional offer of support or merely as a guarantee of assistance in the extremely improbable event of an attack. Whatever it means it evokes disturbing memories of a knight in shining armour.

* * * *

Italy

Signor Mussolini must now feel that the time has come for him to present his people with another substantial gain, obtained if necessary with the assistance of Italy's partner in the axis.

Italy has followed Germany in bringing out the slogan of self-determination so conveniently used and so conveniently discarded. On 30th November, the deputies in the Chamber raised cries of "Tunis," "Corsica" and "Nice," and since then a campaign has been waged in the Italian press, apparently directed towards the acquisition of Nice, Corsica and Tunisia on the grounds that their inhabitants are predominantly Italian. Nice, originally a part of the Kingdom of Sardinia, was an item in Napoleon III's bill for his support and assistance in 1859. Corsica was more or less ruled in turn by the Vatican, Milan, Pisa, Genoa and France in whose hands the island has remained save for a brief period of British rule from 1794 to 1796. The people are not Italian. Tunisia was occupied as a protectorate by France in 1881 with the encouragement of Bismarck, anxious to give her something with which to occupy herself and to forestall Franco-Italian co-operation. The protectorate contains about one million Italian nationals and an approximately equal number of French citizens, the former total including some ten per cent. of Jews, and the latter a number of Italians by race. The status of Italian nationals has long been in dispute and is the subject of a number of agreements, the last of which, made in 1935, has not been ratified. Italy no doubt hoped to catch France disunited internally and in a yielding mood. The "unofficial" campaign, however, encountered a determined opposition in France. As M. Daladier said, "France may appear to foreigners to be a prey to discord. Yet she knows how to forget her discord when not merely her safety, but also the human ideal which she pursues, is at stake." In a tour of Algeria, Tunisia and Corsica, M. Daladier

met with unmistakable demonstrations of loyalty. The Tunisians have shown signs of restiveness at the number of French officials in their civil service and an inclination to consider themselves as much entitled to a "treaty" as the Iraqis and Egyptians; but they have now made it plain that as long as they are under a protectorate they prefer a French to an Italian one. A more moderate tone has since been adopted in the Italian press. Any hope of British mediation was dispelled during Mr. Chamberlain's visit to Rome, and it is understood that Signor Mussolini at that time repudiated any suggestion of territorial demands. It even appeared that he might be satisfied with concessions regarding the status of Italian nationals in Tunis, a reduction of Suez Canal dues and some measure of control in the Djibouti railway. But the adventure in Spain is almost ended. Some further distraction for the Italian people seems required. If Mussolini decides to press his claims on France, Herr Hitler will find it difficult not to give his support.

In these circumstances hopes of peace can lie only in an opposition sufficiently united and prepared to be an effective deterrent. Great Britain's pledge to France, reiterated by Mr. Chamberlain on 6th February, is perhaps worth quoting. The Prime Minister said, "The solidarity of interest by which France and this country is united is such that any threat to the vital interests of France, from whatever quarter it came, must evoke the immediate co-operation of this country." He made plain the complete accordance of His Majesty's Government in the statement of M. Bonnet, which he repeated: "in the case of a war in which the two countries were involved, all the forces of Great Britain would be at the disposal of France, just as all the forces of France would be at the disposal of Great Britain."

The statement caused little comment in Germany, where the position was already well known. Italian comment has been restrained. Efforts have been made to interpret the pledge as an ambiguous one compared with Germany's promises to Italy. In fact, however, the position is plain and there can be no risk, as in 1914, of the belief that Great Britain might stand aloof, encouraging aggression on France.

* * * *

The United States

Great Britain and France can rely on at least the good-will of the United States, where increasing concern has been shown for the defence of her tenets of faith.

President Roosevelt devoted the greater part of a message to Congress at the beginning of January to a warning of the threats, military and economic, to institutions indispensable to Americans. He reiterated America's determination to defend those institutions, and her readiness to take council with other nations to oppose aggression. "Words," he said, "may be futile . . . ," but "there are many methods short of war, but stronger and more effective than mere words, of bringing home to aggressor governments the aggregate sentiments of our own people." The speech was publicly welcomed by Mr. Chamberlain. Official Germany was displeased and the German press enraged. Point is given to President Roosevelt's comments on the operation of neutrality laws by the effects of non-intervention in Spain. There is support in Congress, where the speech was fully applauded, for amendment if not repeal of the Neutrality Act.

On the following day, in a budget message, the President recommended an appropriation of some £264 millions for defence measures, an increase of about £62 millions over the sum contemplated for 1938-39. These sums will be directed chiefly to remedying the serious deficiencies in air power—providing a minimum increase of three thousand aeroplanes; to improving the defences of the mainland, Alaska, Hawaii and the Panama Canal; and to strengthening the present naval bases in the Atlantic and the Pacific. The possibility of creating new bases was also mentioned and in this connection interest has attached to a bill authorising expenditure on the harbour at Guam which the Navy Board has recommended for conversion into an air and submarine base. Were it to be developed as a naval base it would assume the greatest importance in the western Pacific. Subsequent official utterances have left no doubt as to the antipathy felt toward totalitarian methods and ideals, and the bulk of the nation is behind the President in this respect. All this cannot but be viewed with satisfaction by the nations who also place democracy and international good faith in the foreground. Equally, it cannot permit any relaxation in measures taken by those nations for the defence of these institutions and of their homes. There are those in America who consider that the President has gone too far and there have been misgivings at the sale in peace of aircraft to Great Britain and France.

The Situation in Spain

If events elsewhere do not provide the pretext, the closing stages of the war in Spain may yet involve Europe in the conflict which non-intervention has, at the expense of the Republican side, so far warded off. At the end of last year a dead-lock appeared to have set in. This was broken on 23rd December by General Franco's large-scale attack on the line of the River Segre covering Barcelona. The Republican front held in the centre, but gave way first in the south and then in the north, and a general withdrawal was necessary. A well-timed counter-offensive north-west of Cordova only served temporarily to divert Nationalist air forces. The attack continued to progress in the south. Tarragona fell on 15th January and on 20th the key town of Igualada was captured. By this time the preponderance of General Franco's munitions and, in particular, his superiority in the air was having an increasing effect on the Catalan morale. The last line of defence, on which a stubborn resistance was anticipated, crumbled unexpectedly and Barcelona was entered on 26th. The Republican armies continued to resist, but were rapidly driven into the corner between the French frontier and the sea. On 5th February, France opened her frontier to the Catalan army, which was disarmed and interned as it crossed. On the 9th a British cruiser carried a representative of the Nationalist government to accept the surrender of Minorca. During the negotiations the harbour was bombed by three Italian aircraft bearing the Nationalist colours.

The Republicans were thus left in control of south-eastern Spain with Madrid and Valencia. Deprived of the munitions factories of Barcelona, and after serious losses of men and equipment, any hope of victory is lost. In the circumstances, recognition of General Franco was inevitable and it has been accorded by Great Britain and France simultaneously. This has roused the anger of those who are unable to accept facts which do not conform with their ideas.

President Azana had, from the time of his arrival in France, favoured coming to terms with the Nationalists. Dr. Negrin, the premier, and Senor del Veyo, the foreign minister, announced the Republican Government's intention of continuing to fight for the peace terms previously laid down by them, *viz.*, the independence of Spain; the right of the Spanish people to choose their own government; and no reprisals. General Franco continues to

demand unconditional surrender. He intends to proceed against "criminals" in accordance with the existing civil law and has announced his penalties for political offenders. Senor Azana resigned as soon as Great Britain and France recognised General Franco; Senor Barrio, President of the Cortez, became President of Republican Spain. The differences of opinion in the cabinet, which became clear on their arrival in Madrid, lost the Negrin Government the confidence of the people. On 6th March, a council of National Defence was set up, with Colonel Casado as Minister of Defence and commander-in-chief. The former commander-in-chief, General Miaja, about whom rumours had been busy, became President. The Negrin Government fled. The new Junta seems more likely to come to terms with General Franco, and, so far as can be judged at present, lays stress only on the future independence of the country. Its first task was the suppression of communist revolts which broke out in Madrid and other centres. This has now been accomplished. General Franco is naturally in no hurry: it will take time to move his forces for an attack on Madrid. As his success becomes certain he, too, will have differences amongst his supporters to be adjusted.

In the final settlement the chief cause for contention is likely to be the withdrawal of the Italian troops. Ten thousand legionaries were withdrawn on 15th October, though this left unexpectedly large numbers to join in the Catalan offensive. In the Anglo-Italian agreement it was stipulated that "at the moment of the termination of the Spanish civil war all remaining Italian volunteers will forthwith leave Spanish territory" and up to the present Italy has observed the terms of the agreement faithfully. Since then, however, there has been a tendency in the Italian press to apply special definitions to the termination of the war. Signor Gayda has said that Franco's victory cannot be assured "until all the Red arms and armies have been liquidated, both in Spain and the neighbouring territories where they were organised, and where, from time to time, they find refuge and assistance, and until every other sort of illegal political intervention which may serve a purpose has been renounced." This may mean almost anything. It is believed that there have been disagreements between General Franco and his allies, who were displeased at the General's natural desire to conquer and consolidate the country by degrees, and at the concessions obtained by the Germans in exchange for less effort.

General Franco has shown signs of wishing the Italians to leave forthwith. The assistance which he will require in future will be chiefly of a technical and financial nature. Financial assistance is unlikely to be available from the axis powers and is more likely to be sought from Great Britain and the United States of America. There is no reason to suppose, however, that Franco will be ungrateful to those who have helped him. In a conflict, Germany and Italy should be able to count on at least benevolent neutrality from Spain, and our strategy must take note of this fact.

* * * *

Great Britain

In the circumstances outlined above, it is imperative for Great Britain to continue to re-arm with the utmost urgency, and it is satisfactory to note that this is the determination of both government and people. Our chief misgivings in this respect centre on the brakes imposed by the voluntary and democratic systems.

A step which must be specially welcomed by the services is the strengthening of the Defence Ministries by the appointment of Lord Chatfield as Minister for the Co-ordination of Defence. The knowledge which he will have obtained this winter of India's defence problems will doubtless be of value to him.

* * * *

The Defence Estimates

As is only to be expected in the third year of the re-armament programme, when production has had time to be fully developed, there are substantial increases in all the defence estimates. In his speech on 20th February, Sir John Simon explained the proposed allocation of expenditure from revenue and from loan. Last year, £274 millions were provided from revenue and £132 millions from loan, increases of £74 millions and £67 millions respectively on the figures for the previous year. This year, £230 millions are to be met by borrowing and the charges to revenue proportioned to the share which the present generation can fairly be expected to pay. Borrowing powers for defence purposes have been raised to £800 millions. Figures of this magnitude cannot really be comprehended by the ordinary person.

The Navy estimates are increased by £23.5 millions to a total of £153.7 millions, of which £80 millions will be met from loan. The programmes of the last three years are at their most expensive stage; new construction is to be increased by the addition of more destroyers, escort vessels and mine-sweepers; and there is to be a substantial increase in personnel.

The Army estimates, after allowing for contributions from India, Burma and the colonies, amount to £148.15 millions, an increase of £41.6 millions on the figures for last year. Of this total, £66.25 millions, which include the increases from last year, will be met from loan, and the amount to be provided by the tax-payer will be reduced by £3.4 millions to £81.9 millions. The extent to which production of munitions has been developed is indicated by an increase of £23 millions in the vote for warlike stores. The increase from 1936 on this account is £46 millions. There is an increase of £2 millions in the grants for military expenditure to India and Burma.

The air estimates show an increase of over fifty per cent. on last year's. Of £220.6 millions, £66.6 millions will be provided by taxation and £142 millions by loan. These figures include £8 millions for the fleet air arm. The main item is £124 millions for warlike stores, an increase of over fifty per cent. on last year's figures. Progress has been satisfactory and is being accelerated.

An advisory panel of industrialists set up last December to receive representations and make proposals in connection with re-armament has given the Service Departments a good report. They are described as accomplishing a most difficult task of great complexity with efficiency and foresight, the magnitude of their effort being insufficiently realised by the country as a whole.

The Chancellor of the Exchequer gave the total defence expenditure as £580 millions. The amount to be spent on civil defence is in the neighbourhood of £56 millions—not a large percentage in these days. Sir John Anderson, while stating that he did not propose to rest satisfied with the work of his department until its task is completed, gave an optimistic account of preparations in hand. The question of evacuation was referred to in our last number. The policy for the provision of shelters, which seems to be that trench systems should be completed and steel shelters provided on a household basis to give reasonable protection against blast and splinters, has met with criticism by those who advance the claims of deep shelters, proof against direct hits, adopted as a result of bitter experience in Barcelona. The question of providing underground shelters, which can be used in peace for car parks, tunnels and subways, remains under discussion except in isolated cases. The arrangements for the allocation of man power have formed the subject of legislation. A national

register is to be drawn up and the country has accepted with some misgivings that this shall be on a voluntary basis. The issue of the guide to National Service should make it possible for the willing public to volunteer with the full knowledge of the obligations and qualifications required which has hitherto, from all accounts, hindered recruiting. It is to be hoped that the campaign which accompanies the issue of the guide will be continued until adequate recruits have come forward in all districts. A schedule of reserved occupations, showing which activities must continue in war and designed to avoid the waste of specially qualified man power which occurred in 1914, has been published. A scheme has been drawn up for the decentralisation of civil defence under regional commissioners with representatives of the various departments who will prepare plans in peace and be ready to operate in war.

Arrangements for the distribution of food and other supplies from the ports and for the maintenance of essential services are vital items in our defence in respect of which the public should feel satisfied.

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Palestine

At the time of writing information about the Palestine conference is incomplete, but agreement between the Arabs and the Jews seems as unlikely as ever.

The first business meeting, at which the Jews stated their case, was on 8th February. By the 9th the delegates of the Mufti had fortunately been persuaded to sit with those of the Defence or Nashashibi party. The Arabs have stated their demands as: complete independence; the abandonment of the idea of establishing a Jewish national home in Palestine; the replacement of the mandate by a treaty of alliance and the immediate cessation of Jewish immigration and land purchase. Their case hinges to a certain extent on promises in the correspondence of 1915 between Sir Henry MacMahon and the Amir Hussain, in which Arab support was purchased by recognition of Arab independence within certain boundaries. Publication of the relevant portion of the letters still leaves the boundaries open to varied interpretations. Discussions continued for two weeks and apparently resulted in no more than the slightest indications of compromise on either side. Informal meetings between Arabs and Jews led to no better results. The British Government then

brought forward proposals for an advance by stages towards the ultimate creation of an independent Palestine state in alliance with Great Britain and with safeguards for the Jewish minority and British interests. These proposals were categorically rejected by the Jews and, indeed, if they have been correctly reported, they appear incompatible with the Balfour declaration. The Arabs, while criticising the scheme of stages envisaged by the Government, were prepared to discuss the proposals but remained adamant on the stopping of immigration and land sales. Later, further proposals were put forward. These, it appears, envisaged a cantonal system of government with an upper house in which legislation of first importance to both races would alone be initiated and in which decisions would be reached by separate votes of Arabs and Jews. There seems no prospect of this plan meeting with the acceptance of either party. In Palestine itself terrorism continues.

* * * *

Burma

In Burma, the opposition parties, together with the younger element of the priesthood and students, have been carrying on a campaign of civil disobedience directed against the former coalition government, against Europeans and—in spite of the display of sympathy by some of them—against Indians as well. Continued industrial strikes have been fostered, apparently with no other purpose than to cause disorder and embarrass the government, and school strikes have practically put a stop to education. The Lashio-Yunnanfu road has now become one of the main routes by which munitions can reach China. It is not yet complete to full width or capable of standing up to regular and heavy traffic, but the Chinese have performed wonders in driving it through some of the most difficult country in the world and considerable cargoes have begun to move on it. The recent Japanese occupation of Hainan will add to the importance of this route to the Chinese and the advantages which would accrue to the Japanese from its disorganisation.

DELHI AND INDIAN MUTINY

By Major P. H. Denyer, 4th Bn. 11th Sikh Regiment

This article does not presume to add anything new to the mass of information which has been compiled upon the Indian Mutiny nor even to record original research about the siege of Delhi in 1857. The numerous State Papers, biographies, and histories the last of which was published as recently as October 1938 have covered the subject very thoroughly and he who runs may read. This article sets out only to give the results of personal ramblings over the ground as it exists to-day, and it may assist future students to recognise the sites of the various incidents which go to make up the Delhi portion of the story. History takes on a more intimate aspect when action and ground are viewed together, and the siege and capture of Delhi—not the least of the exploits of the British and Indian armies—will repay with lively interest a study by those members of the Services who are fortunate enough to be quartered in Delhi and have a taste for the romance of the growth of civil and military administration in India.

It is becoming fashionable amongst military students to decry the value of past history as an aid to the solution of present and future problems. Progress in world conditions as a whole and military development in particular has so altered the fundamentals of the problems, it is said, that to seek inspiration from past events would be to apply the bow-and-arrow standard to (the problems of) mechanised armies. There is probably a great deal in all this. Most theories contain much solid sense to commend them and it is only misguided devotees who flog them beyond the distance they were designed to run. It was Napoleon who advised us to read and re-read the lives of the great captains, and he must be well armoured with the complacency commonly attributed to the military profession who would dare to scorn the advice of the Little Corporal. To the intelligent reader there is a lesson in every campaign which, if applied with discretion, will lead eventually to the truth we seek. The history of the Indian mutiny will repay the time spent on it if only the wisdom of John Lawrence's counsel is appreciated. "Pray only reflect on the whole history of India," he appealed. "Where have we failed when we acted vigorously? Where have we succeeded when guided by timid counsels?"

As this article purports to deal only with Delhi, it will touch but briefly upon the events which led up to the outbreak in that city. Sporadic acts of rank indiscipline had occurred at Burhampore and Barrackpore. The superficial causes connected with greased ammunition and polluted flour are well known; but the real cause was something far deeper. Courts of enquiry sat to discover and remove reasonable causes of discontent, but the cavalry *sowars* in Meerut still refused to accept the very cartridges which they had been using since they were enrolled. The military authorities at Meerut pronounced a court-martial. Here was no justification for complaints of outrage against an intensely religious code but something based on insolent presumption and unfounded superstition. The delinquents, mostly from the 3rd Light Cavalry, were sentenced to long terms of imprisonment. To point the lesson, Major-General Hewitt had the sentences promulgated at a station parade and the entire garrison was edified during four sun-baked hours by the spectacle of the prisoners' irons being fitted one by one by the regimental blacksmiths. The appeals and jeers of their misguided comrades occupying the centre of this tragic stage must have been a sore trial to the Indian troops who witnessed the scene.

The next move in the drama followed rapidly. The following day, on Sunday, May 10th, the Indian troops in Meerut broke out from their lines and, arming themselves from their own bells of arms, surged towards the jail and released the prisoners by force. The outbreak had been timed to coincide with the evening church service which would be attended, unarmed, by all the British regiments of the garrison. By a coincidence the parade service had been put back that very day by half-an-hour, probably on account of the growing heat of the evenings. The uproar, then, found the 3rd Carabiniers and the 60th Rifles assembling for church on their parade grounds. They were hastily dismissed to collect their arms and ammuniton, but for want of further orders they remained on their parade grounds doing little but protect their own lines. It is interesting to note here that British troops in India (to this day) still carry their rifles on church parades as a reminder of the day when they were caught unprepared.

In the meantime the mutineers had returned triumphant from the jail carrying with them the comrades whose shame they had witnessed four days before. As darkness fell there began such an orgy of murder, arson and loot as had never been witnessed since the British came to India. The British officers of

sepoy regiments hurried to the lines in an endeavour to stem the tide by their own personal influence; but most were shot down, if not by their own regiments, then by the scattered detachments of other corps. Those that escaped did so only after their lives had been attempted and when they realised that things had gone too far for peaceful persuasion. Most of Meerut was given over to the mutineers and few lone Europeans, Eurasians, or Christians escaped brutal murder. By morning the uproar had subsided and the dawn saw the rising smoke from smouldering bungalows and heard the cries of the dying and the wailing of the bereaved. The British troops were still standing to their arms in their lines, but the mutineers had disappeared with the night, the cavalry mounted, the infantry on foot, towards Delhi.

Delhi was the obvious rallying point for the half triumphant, half terrified sepoys. When Lord Lake captured Delhi in 1803 from the Maharattas, the East India Company decided to defer to Mussalman opinion so far as to continue to maintain the royal state of Timur's descendants. Shorn of all executive power outside his own entourage, the ruling king in 1857 was the puppet Bahadur Shah who, with his queen Begum Zeenut Mahal, held sway within the walls of his rose-red palace which had been built by the Emperor Shah Jehan in 1631 together with the Jumma Masjid. Conditions in this *opera bouffe* court were such as are associated with native rule of the period. The entourage comprised innumerable hangers-on, all avid for preference. Intrigue was rife: immorality and murder normal activities. The area now occupied by British barracks and the inevitable playing fields was then covered by sordid hovels and peopled by the results of illicit amours of prince and courtier.

It was to this rallying point that the mutineers came on the early morning of Monday, May 11th, 1857. The first European to lose his life in Delhi was Mr. Todd of the Telegraph Department who, having been told that the line between Meerut and Delhi was out of order had gone out, all unaware, to see if he could discover the cause of the breakdown. A memorial stone to Mr. Todd stands approximately where he was shot down, and must be a familiar landmark to all followers of the Delhi Hunt who have met the Master at the east end of the Jumna Bridge.

At the time of the Mutiny a bridge of boats spanned the river at the position now occupied by a rail and road bridge. Crossing the bridge, the insurgents turned left and followed the path which then skirted the walls of Selimgurh where the palace guard was

quartered. In those days the river all but lapped the walls of the palace. They gathered in an open space below the royal apartments; and, standing now on the walls, one can picture this crowd of blood-thirsty horsemen jammed below the marble halls that bear the famous Persian inscription:

If there be a Paradise here on earth—
It is this, it is this, it is this!

The mutineers were in no mood for courtly custom. They believed retribution to be even then on their heels, and they were desperate. They howled for the King to lead them against the English and make himself in truth Emperor of Delhi and the whole of Hindustan. It was a situation with which the feeble old pantaloon was not qualified to deal. He sent for Captain Douglas the *Qildar* who commanded the palace troops, and Douglas, only half realising the true position, railed at the men for their effrontery to the King, and told them to disperse and bring what complaints they had in a proper manner. But there was one listener in this stirring scene who very quickly grasped the true import of what was happening and saw in it a heaven-sent opportunity to further her own schemes. This was Begum Zeenut Mahal, the King's favourite wife, who fiercely resented the British decision to discontinue the Emperor's court and subsidies on his death, and saw in it only an attempt to deprive her son of his rightful inheritance. Here was a chance to ensure that the little prince should become a true Emperor! In defiance of all Mussalman custom she threw to the mutineers below a word of encouragement at which, with a yell of triumph, they galloped off to find the nearest entrance to the city. This took them through Darya Ganj, the suburb between the palace and the river which was inhabited largely by the Eurasian population of Delhi. The Rajghat Gate was opened to them and they rode through the suburb from end to end slaughtering every Christian within sight. The mutineers were within the city of Delhi.

Douglas had meanwhile been joined by Mr. Fraser, the Commissioner of Delhi, and Mr. Hutchinson, the Collector, and together they hurried to the Calcutta Gate which lies between the river and the palace on the north side. Here they were attacked by more Meerut mutineers. Fraser shot the leader and escaped. Both Douglas and Hutchinson were wounded in their endeavours to regain the palace by way of the moat. Douglas's quarters were situated above the Lahore Gate of the palace where a British soldier sentry stands to-day. He was cut down by one

of the palace servants as he reached the steps leading from the road. His guests Mr. Jennings, the chaplain, Mrs. Jennings, and Miss Clifford were also murdered in an upstairs room.

Lieutenant Willoughby was in charge of the magazine within the city which held the expense ammunition, the main store being north of the cantonment, near the river bank, the buildings of which were converted and recently used as kennels by the Delhi Hunt. The site of the city magazine is to-day marked by the original gateways which still stand upon a grass plot facing the General Post and Telegraph Office. A memorial to those of the Telegraph Department who lost their lives on May 11th, 1857, stands on the same plot. Willoughby and eight other Europeans of the Commissariat Ordnance Department hastily barricaded the magazine and, placing two field guns at salient points, prepared to defend the building. Shortly after the first onslaught the lascars within the magazine were found to be untrustworthy and were ejected. From then onwards the defence consisted of Lieutenants Willoughby, Forrest and Raynor, three Conductors and three Sergeants. They held out for three hours until 3-30 p.m. against savage attacks by hordes of mutineers at which hour, judging the situation to be hopeless, Willoughby gave the order and Conductor Scully fired the train which blew up the magazine. Miraculously enough the three officers, two conductors and one sergeant escaped. The remainder perished. Willoughby perished later on his flight to Meerut. The others survived the Mutiny and were awarded the Victoria Cross which few can have earned with greater merit.

The military garrison of Delhi consisted of three native infantry regiments—the 38th, 54th and 74th, and de Tessier's battery of artillery. Their lines were situated two to three miles north of the city. Brigadier Graves, who had once commanded the 54th, now commanded the station. The 38th were furnishing the main guard at the Kashmir Gate. When news reached Brigadier Graves of the arrival of the Meerut mutineers, he ordered the 54th to march down from cantonments. The 38th guard watched sullenly as the 54th marched through. At the first touch with the mutineers, somewhere in the area now occupied by the show-rooms of motor firms, four British officers were killed and the colonel was wounded. That was the end of the 54th. The 74th with a magnificent reputation then took their turn but fared no better. They marched in high spirit along the road from cantonments shouting "Company *ji ki jai*!" (Victory to the Company) but their enthusiasm for loyalty accompanied them no

further than the Kashmir Gate. True, they did not shoot their officers but they refused to take action against the mutineers and shortly afterwards they withdrew again through the Kashmir Gate accompanied by de Tessier's gunners. The guard of the 38th then seized the opportunity and shut the gate. The bewildered officers of the 74th still standing in the open space before the gate aghast at the disgrace which had fallen on their beloved regiment found themselves under the fire of the guard at the gate. Together with some English ladies who had joined them, they ran for protection to the bastion and from the top of the wall with the aid of improvised ropes managed to drop over into the moat below, whence bruised and shaken they made their way back to cantonments. The situation was a sorry one. The magazine had been destroyed, the survivors in Darya Ganj were selling their lives dearly from the one bungalow which they had fortified, the whole garrison had gone over to the mutineers, and still there was no sign of the long expected help from Meerut. The telegraphists had remained at their posts long enough to send messages to Ambala and Lahore before they were forced to close down. Facsimiles of these messages are on view in the small museum in the south-east corner of the *Diwan-i-Khas* gardens and provide a poignant picture of the helplessness of authority in Delhi. The Telegraph Department and the Ordnance alone proved equal to their task in the emergency. Brigadier Graves collected the European survivors—men, women, and children—at the Flagstaff Tower on the Ridge and from there ordered a bugler to sound the "Assembly." Even this theatrical gesture failed to bring salvation, and Graves then ordered a general "sauve qui peut." Very few reached the safety which lay at the end of the Ambala and Meerut roads both over forty miles away, and those only after exposure and desperate privation.

Many are the stories told of this terrible day. Sir Theophilus Metcalfe who was Joint Magistrate in Delhi, and who had inherited the lovely Metcalfe House from his ancestor Sir Thomas, escaped in disguise along the Rohtak road, and was sheltered in a cave from pursuing horsemen by a friendly fakir who told the sowars that the cave was inhabited by a fierce devil. One sowar boldly entered the narrow entrance and was killed by a blow from Metcalfe's sword; whereupon the remainder announced themselves convinced of the truth of the fakir's story, and rode away. The bank manager Beresford and eight members of his family were killed in an attempt to defend the bank. Across in St. James's churchyard a stone stands now to their memory. Metcalfe House

was ransacked and destroyed by Gujar herdsmen who for years had carried a grievance against the Metcalfes for occupying their grazing land. The house stood then on the site of the present Metcalfe House, between Alipur road and the river. The foundations of the original building alone remain.

From the evening of May 11th until the rebels were driven out in September, King Bahadur Shah held sway in Delhi. True but little authority was conceded to him by the insolent sepoys who invaded his royal privacy and picketed their horses within the *Diwan-i-Khas*. They sent him importunate summons concerning their pay, and made up the arrears by extortion from the merchants of Delhi. A diary kept during the seige by one of the King's ministers supplies a strange story of Oriental rule, of flattery and intrigue, of tawdry pomp and show, of incessant quarrel amongst the entourage, of distasteful irruptions into the royal privacy by mutineers demanding more and more money. The King's eldest son Mirza Moghul proclaimed himself head of the army. His first action was to order the execution of the white remnant in the city, those 49 unfortunates, mostly women and children who had been captured on May 11th. They were taken from the dungeons within the palace, roped together, and handed over to the blood-thirsty cavalrymen. Mrs. Aldwell who escaped death by pretending to be a Mussalmani, alone lived to tell the tale. The bodies were thrown into a well, and the grass plot immediately in front of the entrance to the *Diwan-i-Am* is said to mark the site of this multiple grave. A tablet in St. James's Church records the names of as many as could be remembered.

Mirza Moghul shared his command with Subedar Bakht Khan of the 15th Horsed Battery who had served with distinction in Afghanistan. Bakht Khan's enormous girth made him the subject of ribald mirth and lampoon by the British soldiery who later opposed him from the Ridge. For all his ability and personality he was unable to secure any marked degree of co-ordinated effort amongst the sepoys who tended to group into batches from regiments and stations under their own officers. As each new batch found its way to Delhi amidst the braying of bands, waving of flags and shouts of enthusiasm, they were encouraged to make good their boasts of how easily they could dislodge the pitiful British force from its hold on the Ridge; but nightfall found them again sheltering within the walls of Delhi still boasting of what they would do on the morrow. Their lack of success, and the heavy casualties they sustained caused despair amongst their ranks, and towards the end of August, wearied by failure, internal

quarrels, intrigue amongst the officers and pillage by the sepoys, King Bahadur Shah made secret overtures to the British commander promising to deliver the city in return for his own royal state. The answer was a demand for an unconditional surrender.

The mutineers were well served with artillery and ammunition, for although the magazine in the city had been destroyed, the main store on the river bank was captured and brought into Delhi. The artillery sepoy was a well trained gunner in defence and, controlled by the renegade subedar, worked his guns with such effect that after the Mutiny it was decided never again to train sepoys as gunners. This order has, of course, since been rescinded.

Let us turn back again to the fateful May 11th. Messages sent by the devoted telegraphists on that day reached Ambala and Rawalpindi. Sir Henry Barnard commanding the former station despatched his son with the news to the Commander-in-Chief, General Anson. Young Barnard galloped along the Simla bridle path which went by Sabathu, and presented his direful despatch to the Commander-in-Chief as he sat at dinner on the evening of the 12th. General Anson lost no time in ordering his dispositions, but the collection of the necessary siege train and transport vehicles was a lengthy affair in those days of slow communications. He himself superintended the preparation of a force for the relief of Delhi which was to consist of two brigades from Ambala and one from Meerut. These two forces were to effect a junction at Baghpat, twenty-one miles north of Delhi. Having drafted the instructions for the move, the Commander-in-Chief left Ambala on May 24th and died of cholera at Karnal on the 26th.

The command of the Field Force now devolved on Major-General Sir Henry Barnard who decided to march with the Ambala portion of the force at once. He reached Alipur, ten miles north-west of Delhi on June 5th, and there awaited the arrival of the Meerut brigade. The latter brigade had marched from Meerut on May 27th and had been surprised by a force of mutineers at Ghazi-ud-din Nagar (now called Ghaziabad) at dawn on May 30th. Energetic handling of the artillery under Major Tombs and Lieutenant Scott and a spirited attack by the 60th Rifles drove the rebels from their position along the west bank of the Hindan River. After more opposition from a vastly superior force the 60th Rifles successfully crossed the river, and the Carabiniers completed the flight of the enemy; but the brigade had suffered severely during the two days' fighting especially from the intense heat. A welcome reinforcement of the Sirmoor Battalion

of Gurkhas joined them on June 1st and the two forces concentrated at Alipur on June 7th.

A gallant reconnaissance by Lieutenant Hodson—who later raised the famous Hodson's Horse—revealed to Barnard that the enemy had taken up a strong position at Badli Serai which flanked the Ambala road. The force was split into three portions to attack the left, centre and right of the Serai. The left party was to encircle the Horse Shoe Jheel and attack the right rear of the enemy position; and the right party, which included the cavalry, was to cross the Western Jumna canal and attack from a crossing south-west of the Serai. Owing to mistiming the centre force found itself facing the destructive fire of the mutineers alone. The day was retrieved by a spirited bayonet charge by the infantry, notably H. M. 75th Regiment and the 1st Bengal European Fusiliers. When the Serai had been captured and the enemy batteries destroyed, the flank attacks materialised and completed the defeat of the retiring mutineers.

The Field Force then moved straight on towards Delhi and encountered the next opposition from the Ridge which was to be the scene of so many gallant efforts during the next three months. The troops reached the road junction at Azadpur and split into two parties, one taking the road which led to the Ridge *via* the cantonment, whilst the other moved by the road to Sabzi Mandi. The rebels opposed both columns but the combined attacks from the flanks together with a frontal threat by the Sirmoor Gurkhas caused the enemy to vacate his position and retire behind the protection of the city walls. The Field Force moved along the Ridge from both flanks and concentrated again at the Flagstaff Tower where they found a bullock cart piled high with the dead bodies of the British officers who were killed on May 11th.

Contemporary sketches and photographs of the Ridge (which are on view in the *Diwan-i-Khas* Museum) show that the area in 1857 was less covered by trees than at present, the main botanical feature of that time being a low scrub which grew sparsely on both eastern and western slopes. The buildings which figured in the bitter fighting are easily recognisable to-day—Hindu Rao's House (now a hospital standing on the original site), the Observatory (the summit of which, if you will face the steep narrow steps, provides an unrivalled view of the scene), the mosque of Pir Ghaib, and the Flagstaff Tower. The military tactics of the period, governed as they were by the short range of the weapons in use, demanded that the British force should occupy the high ground of the Ridge. It seems a curious tactical position in these days

running as it does nearly at right angles to the northern wall of the city, with the Hindu Rao flank only 1,200 yards from the enemy, whilst the left flank ran away to a distance of 2,800 yards; but as the Delhi Field Force became in fact the besieged and not the besiegers, it was necessary to occupy a position from which it could withstand the attacks of the insurgents.

The capture of the Ridge was celebrated by the burning of the Indian barracks, which were situated upon what is now an open space north of Probyn Road. The destruction of the buildings must later have been sorely regretted, as the thatched roofs would have provided very grateful shelter from a burning sun for those few who could be spared from the forward piquets. Some officers' bungalows were in fact repaired and served as hospitals for the wounded and sick. A camp was erected upon the site of the present golf course to accommodate that portion of the force not actually manning the Ridge defences.

On June 9th, the day following the arrival of the British, the rebels made their first sortie against the vulnerable Hindu Rao flank. Issuing in force from the Ajmere Gate after a preliminary bombardment, they attempted to capture the nearest piquets; but that day had also seen the arrival of the Guides to provide a much-needed reinforcement. The Guides consisted of three troops of cavalry and six companies of infantry under Captain Daly. They had marched from Mardan, a distance of 580 miles, in 22 days—a magnificent achievement. Within a few hours of their arrival they were driving the mutineers back behind the protecting walls of Delhi. Similar attacks from the city on June 10th and 11th were successfully met by the 60th Rifles, the Guides and the Sirmoor Gurkhas. These three regiments shared the honour of defending Hindu Rao's House throughout the siege. Major Reid and his Gurkhas never left the position during the whole siege of Delhi except to attack the enemy. There can be few nobler pages throughout the annals of these three famous regiments, and they pay tribute to the devotion displayed in these operations by wearing red piping on the collar of their full-dress uniform.

From this time onwards the tale of the siege of Delhi is the story of a series of attacks upon the British position at almost daily intervals. A sharp encounter near Metcalfe House caused the extension of the British line from the Flagstaff Tower south-eastwards to Metcalfe House. A battery of guns was placed in position on the site now occupied by the tall Mutiny Memorial, which was erected at Queen Victoria's command. A piquet occupied the Swamy House—the soldier called it the Sammy House and as such

it became famous in history—which was about three hundred yards down the forward slope from the present memorial.

Sickness and battle casualties caused sad losses amongst the already tiny force. Cholera made its grim appearance, and on July 5th counted the Commander-in-Chief, Sir Henry Barnard, amongst its victims. Thus the second commander-in-chief succumbed to his duties. It was said at the time that he died from "an attack of John Lawrence." Sir John, far away in the Punjab, was constantly urging upon the harassed Commander-in-Chief the imperative necessity for a speedy recapture of Delhi and the dangers, which the poor man must have appreciated only too well, of delay. Sir Henry's grave can now be seen in the small graveyard on the left of the road running from the Ridge past the old Government House (which is now a college) towards the Kingsway polo grounds. This cemetery contains other relics of absorbing interest, notably two graves commemorating a young officer named David Francis Sherriff who died on August 14th of wounds received in action on August 12th. One grave is on the left of the main pathway leading from the entrance, the other is in the south-west corner. Now, why two graves for one body? And whose is the other body, if any, which rests in the grave not occupied by Sherriff?

General Reid took command of the Field Force after the death of Sir Henry Barnard, and his task continued to be that of controlling the efforts of the ever-dwindling British force to maintain its hold upon the Ridge in face of perpetual attacks by the mutineers whose strength was variously estimated at between thirty and forty thousand. The official list of engagements contains eleven fought during June, six in July and three in August, apart from the bombardment and assault which took place in September. Battle casualties continued to make grave demands upon the strength of the force, and orders were issued forbidding the soldiers to follow up the mutineers to the very walls of Delhi, where so many casualties were suffered. On June 27th the rains began and brought a welcome respite from the terrible heat; but it was a mixed blessing for it also brought an almost intolerable plague of flies, and an epidemic of malaria, to add to the already raging cholera. The British soldier continued to resent in no uncertain tone the effrontery of the "pandies" in appearing in battle in the uniforms of their old corps, thus making distinction between friend and foe, especially at night, a difficult matter. A white woman, the wife of a British conductor, is said to have

escaped from Delhi to the British lines in July. She was preserved from the general massacre of May 11th through the friendly offices of an Afghan, who hid her in Delhi until her escape. It is upon this incident that Flora Annie Steel based her novel "On the face of the waters," an absorbing story of the mutiny published by Heinemann in 1896. The conductor's wife is not the only white woman who saw the fighting on the Ridge. The foreign wife of an officer in the gunners, in defiance of all orders, remained with her husband in the camp. It is even said that a child was born to this couple during the siege, and that the child carried through life the inconvenient Christian names of "Delhi Field Force." The supply of ammunition began to run perilously short and four annas a ball was offered for shot recovered from the enemy. Hodson organised an intelligence system by which the Commander-in-Chief was kept well informed of the state of things in the city, where the chief agent was Rujjub Ali, Mir Munshi. Communication with the Punjab remained open, thanks to the co-operation of the Sikh States, notably Patiala, Nabha and Jind: and Colonel Young, the Judge Advocate-General with the Field Force was able to inform his wife that the supply of bottled beer in the gunners' mess was adequate and very acceptable, and she could supplement his information on events by the stories she heard from convalescent officers in Simla.

The Flagstaff Tower became the controlling centre of operations and it was to this spot that officers not on duty in the piquets were wont to repair to discuss the latest events of the siege. The Tower was all but captured by a surprise attack early in June, and on July 9th the rebels succeeded in circumventing the flank defences covering Hindu Rao's House and the Sabzi Mandi, and were actually amidst the British lines before the counter-attack, gallantly led by Major Tombs and Lieutenant Hill, drove them out again. Thereafter, a piquet was permanently stationed upon the Generals' Mound, which was the name given to the hillock the summit of which is now occupied by the golf house. Both Tombs and Hill received the Victoria Cross for their courage and leadership on this day.

On July 17th General Reid, with sadly impaired health, handed over command of the Force to Brigadier Archdale-Wilson, who thus became the fourth commander the Force had had in three months. He was not the senior officer present but was reckoned the most able. His main task was to adjudicate between the impatient school, still led by Lawrence in the far-off Punjab who urged an immediate assault on Delhi, and the more sober school,

to which he himself inclined, which advised awaiting reinforcements before committing a wearied force which never reached ten thousand men against three times that number of well trained mutineers securely established behind the walls of Delhi.

The enemy issued in strength again on July 23rd and established a force of foot and guns in Ludlow Castle, in an attempt to capture Metcalfe House. Ludlow Castle is the building on the opposite side of the Alipur road to Maiden's Hotel, which until recently housed the Old Delhi Club. The attack failed but was repeated on August 7th and it required a night attack by a large force of Europeans, Sikhs and Gurkhas to dislodge the mutineers. The losses amongst the British Force were serious and included Brigadier Showers who commanded the counter-attack and Major Coke of the famous Coke's Rifles, both of whom were wounded.

With the arrival of General Nicholson on August 7th came the turning-point in the siege of Delhi. His name alone stirred all the weary hearts on the Ridge; his influence was dynamic. He was only thirty-five years of age but "he was a knight belonging to the time of King Arthur and his majestic presence had the high moral grace which makes bravery and strength beautiful." Thus speaks Forrest in his "History of the Indian Mutiny." He preceded by a week the column which he had brought from the Punjab to reinforce the Field Force in the attempt to retake Delhi. Behind Nicholson's reinforcements came the siege train that was to breach the walls of Delhi. The mutineers attempted to cut off the siege train, and Nicholson himself headed the force which left the Ridge and met the enemy at Najafgarh about fifteen miles south-west of Delhi. Ten days before, on August 14th, Hodson and his cavalry had ridden forty-five miles to Rohtak to intercept a wide flanking movement. Both these actions resulted in the insurgents returning discomforted to the city, and the siege train of thirty heavy guns and ample ammunition reached the Ridge on September 3rd. Henceforth the aim could be not only to maintain a hold on the Ridge but to go forward and drive the enemy from Delhi.

Between September 7th and 11th the guns were secretly moved forward to selected positions from which they would open a path through the city walls. Four emplacements in all were constructed, and their positions are marked to-day by red stone plinths inscribed with the name of the battery commander and the battery task. No. 1 (Brind's) Battery was erected in two sections, right and left, in the area between the present police lines

and the Cecil Hotel. No. 2 Battery was also in two sections, the right near the cemetery by Nicholson Gardens, and the left in Ludlow Castle grounds. Incidentally it was this battery which was served by Lieutenant Roberts who later became the famous Field-Marshal. No. 3 Battery was erected within two hundred yards of the Water Bastion and the memorial plinth can now be seen facing the north-east corner of the city wall in Qudsia Garden. The small building near-by was then the customs house. The story of the construction of this emplacement under direct fire from the city walls is one of valiant heroism on the part of the unarmed Mazhbi Sikh pioneers who, notwithstanding cruel losses among their patient ranks, continued the work until the position was completed and the guns, under cover of night, wheeled into place. This is not the least of the stories of stark heroism that the records of the Mutiny contain. No. 4 Battery was placed opposite Ludlow Castle, on the eastern side of the Alipur road.

On the morning of September 11th the bombardment began and continued day and night until the 14th. The city walls soon showed the effects of this rain of shell, and the gunners cheered loudly as portions of the high walls slid down into the moat. The mutineers were not idle, however, and being unable to fire their guns from the embrasures, they wheeled them out into the open and caused grave casualties in the British ranks; but it was all to no avail. The day of reckoning had come and the mutineers were not insensible of the results of defeat.

Before dawn on September 14th, whilst the guns still thundered out their challenge, the storming parties moved silently through the low scrub and trees to their assigned positions. The first column under Brigadier-General John Nicholson consisted of three hundred men of H. M. 75th Regiment, two hundred and fifty of the 1st Bengal Fusiliers and four hundred and fifty of the 2nd Punjab Infantry. This column was to assault the Kashmir Bastion.

The second column under Brigadier Jones consisted of two hundred and fifty men of H. M. 8th Regiment, two hundred and fifty of the 2nd Bengal European Fusiliers and three hundred and fifty of the 4th Regiment of Sikh Infantry. This column was directed upon the Water Bastion.

The third column was commanded by Colonel Campbell and consisted of his own regiment, the 52nd Light Infantry who numbered two hundred men, two hundred and fifty Gurkhas and five hundred of the 1st Punjab Infantry. This column was

to destroy the Kashmir Gate by blowing it up, and then assault the gate.

The fourth column comprised Major Reid and his Sirmoor Gurkhas, the Guides and the Kashmir State contingent totalling a strength of eight hundred and fifty who were to enter the city by the Kabul Gate *via* the Sabzi Mandi suburb.

The reserve column included H. M. 61st Regiment, the 4th Punjab Infantry, the Balluch Battalion and the Jhind State Contingent, altogether one thousand and fifty ranks.

Owing to some delay it was broad daylight when the columns moved forward from their assembly position. The point of honour was the Kashmir Gate, and a party of sappers preceded the Infantry carrying bags of gunpowder with which to blow in the gate. This party crossed the intervening open space at the double and placed their powder against the gate. As he was about to apply the match Lieutenant Salkeld was struck by a ball from the wicket gate; but before he fell into the moat he handed the still lighted match to Corporal Burgess who fired the train before he was killed. A stone memorial at the gate to-day bears the names of the heroes of this incident. Bugler Hawthorne of the 52nd Light Infantry then sounded the "Advance" and the waiting column surged forward and carried the gate.

The mutineers, rendered desperate by the fate they knew awaited them, contested every step of the way. Again and again the British were held by reckless men who manned the alley-ways and the flat-topped houses and wrought much havoc before they were killed or driven out. The Kashmir and Water Bastion columns were unable to penetrate far into the city and some bitter fighting took place around St. James's Church as the original ball and cross, which then surmounted the dome and now stands in the church grounds, testifies. The fourth column under the indomitable Major Reid was held up in its attempt to advance through Kishanganj. The insurgents drove them out of the Id Garh, and after Major Reid had fallen it was feared that the column might be driven back to the Ridge and the other attacking columns outflanked. With the help of the cavalry, the Guides, and the Baluch Battalion they succeeded in holding on, but were not strong enough to drive the large body of the enemy from their position at the Lahore Gate. The action of the cavalry who stood their ground in battle array in full view of the enemy undoubtedly contained a large force which otherwise would have been employed against the other attacking columns at the Mori and Kashmir gates.

Meanwhile the Kashmir Gate had been captured, Nicholson's Column wheeled to the right after entering the breach at the Kashmir Bastion, and swept along the inside of the wall driving the insurgents before them. The narrow street leading towards the Burn Bastion and the Lahore Gate was occupied at the former by a band of resolute sepoys who had mounted guns in the roadway and upon the parapet of the wall. Their sharp-shooters occupied the windows and roofs of the adjoining houses, and defied all efforts of the attackers to advance towards the Lahore Gate. With the utmost gallantry the Bengal Fusiliers penetrated sufficiently far up the narrow gully to capture one of the guns in the roadway; but the covering fire from the Burn Bastion was too much for them, and leaving behind a pile of dead and wounded, they were compelled to relinquish the captured gun and retire behind the cover afforded by the houses in the angle of the wall. Their officers called in vain upon the men to face again that merciless storm of shot. Then Nicholson arrived and the exhausted attackers took fresh heart. Calling upon the men to follow, Nicholson rushed gallantly forward. The tall leader was an easy mark for the hidden sharp-shooters and he fell almost immediately with a ball in his chest. The inspiration of the attack fell with Nicholson and, carrying the dying general with them, the gallant remnant retired doggedly to the Kabul Gate. The third column had reached the Jumma Masjid, but had insufficient strength to maintain the position and were forced back to the narrow strip inside the northern walls bounded by St. James's Church.

Lord Roberts tells how he found the wounded Nicholson on a native stretcher lying inside the Kashmir Gate. He had probably been first attended to in the field hospital which had been established in St. James's Church. He was then taken back to the hospital tent behind the Ridge.

The fall of that inspiring figure, the small success which had attended the assault, and the heavy losses that had been sustained gave rise to grave doubts as to whether the city could be captured by the force available. General Archdale-Wilson, taking counsel of his fears, was for evacuating the city and retiring back to the Ridge. Nicholson, weak and dying, exclaimed when he heard the proposal: "Thank God I have still sufficient strength left to shoot that man if he orders retirement."

He lived long enough to hear of the capture of the city, for, with his stronger counsels, the assault was continued the next day. On September 16th, after two days of street fighting, the

magazine was captured. Three days later the palace fell and the erstwhile King of Delhi and his ambitious queen took refuge in Humayun's Tomb, four miles south of the city. They were both captured and brought back to Delhi.

Nicholson died of his wound on September 23rd, three days after the city was completely cleared of the mutineers. He was laid to rest after a simple but largely-attended ceremony, in the cemetery behind the Nicholson Gardens. This resting place was chosen, strangely enough, in preference to that in which Sir Henry Barnard, and all the other officers, non-commissioned officers and men who fell or died during the siege were buried. It is difficult to discover the reasons which led to the isolation in death of this revered leader from his comrades in arms who had served with him and died for the same cause.

Many personal relics have been preserved even to the coat he was wearing at the time he was struck down. This and many other objects and documents of intense interest are still on view in the museum in the *Diwan-i-Khas* Gardens. A memorial to Nicholson stands in the gardens to which his name has been given, in front of the cemetery which holds his tomb. The portion of the wall at the Burn Bastion where he fell has been preserved and a tablet on both sides of the wall marks the spot. Busy thoroughfares and modern buildings now surround the little shrine, but it is worth while climbing the steps on to the ramparts inside the embrasures. From there it is easy to picture the scene of September 14th, for the setting inside the walls is much as it was in 1857. Imagination peoples the narrow street with surging men, and one can hear the shouts of the striving and stricken amidst the heat and dust, the bellow of the guns from the parapet, and in the street the sharp cries of the leaders as, behind the shelter of the angle of the wall, they once again reform their men for yet another rush. At that spot fell a hero who ranks with the greatest Britain has produced, to whom self meant nothing and service all.

Hodson was sent with an escort to Humayun's Tomb to arrest the three princes, Mirza Moghul, Abulbakr and Khair Sultan. On the return journey into Delhi the escort and their prisoners were followed by a large crowd of sightseers. Hodson considered the attitude of the crowd to be threatening and in order to avoid a rescue, he pistolled all three with his own hand at the Delhi Gate. His action caused a revulsion of feeling, especially in England. It was known that Mirza Moghul had been directly responsible for the murder of the forty-nine Christians within the palace on

May 16th but public opinion, inflamed as it then was by stories of brutal atrocity, would not countenance the shooting in cold blood of unarmed prisoners. Hodson's reputation never recovered from the censure laid upon him by the court of enquiry.

The fall of Delhi was the beginning of the end of the Mutiny, although eighteen months were to elapse before all the armed bands which ravaged the country-side were rounded up or dispersed. The memorial now standing on the Ridge bears the names of all the officers who lost their lives at Delhi, together with much statistical information regarding strengths and casualties and the names of that regiment who carry "Delhi 1857" amongst their battle honours.

Sincere tribute must be paid to the Indian ranks from the Punjab, Nepal and elsewhere who shared with their British comrades the heat and burden of the siege and assault. Contrary to general thought the disaffected were in a large minority and were found almost exclusively in the Bengal Army. The Bombay and Madras Armies remained loyal and, the Sikhs and Gurkhas, took an active part in quelling the insurrection. The civil population suffered as much from the mutineers as did the Europeans, and many a sigh of heart-felt relief went up from Indian hearts at the news of the recapture of Delhi by the British. British rule in India depended then, as it does now, upon the millions in town and country who value security and justice and their memory is hallowed by the fact that they were ready to lay down their lives for the cause.

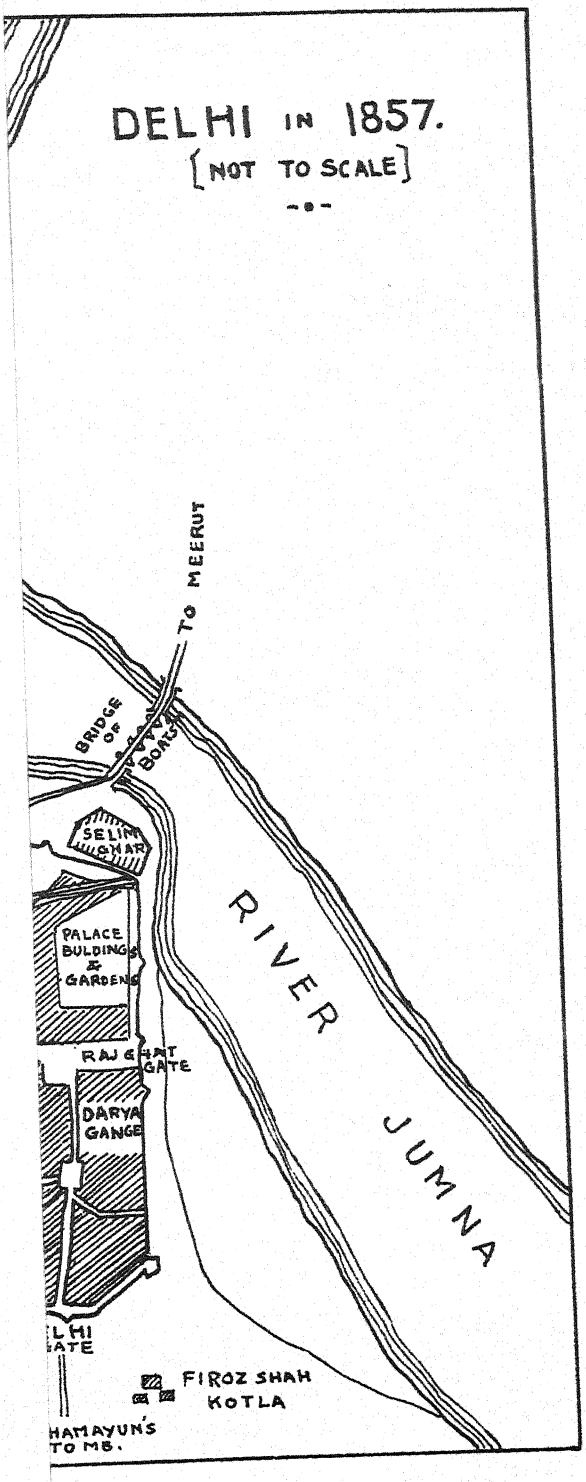
The following regiments and units were present at the Siege of Delhi:

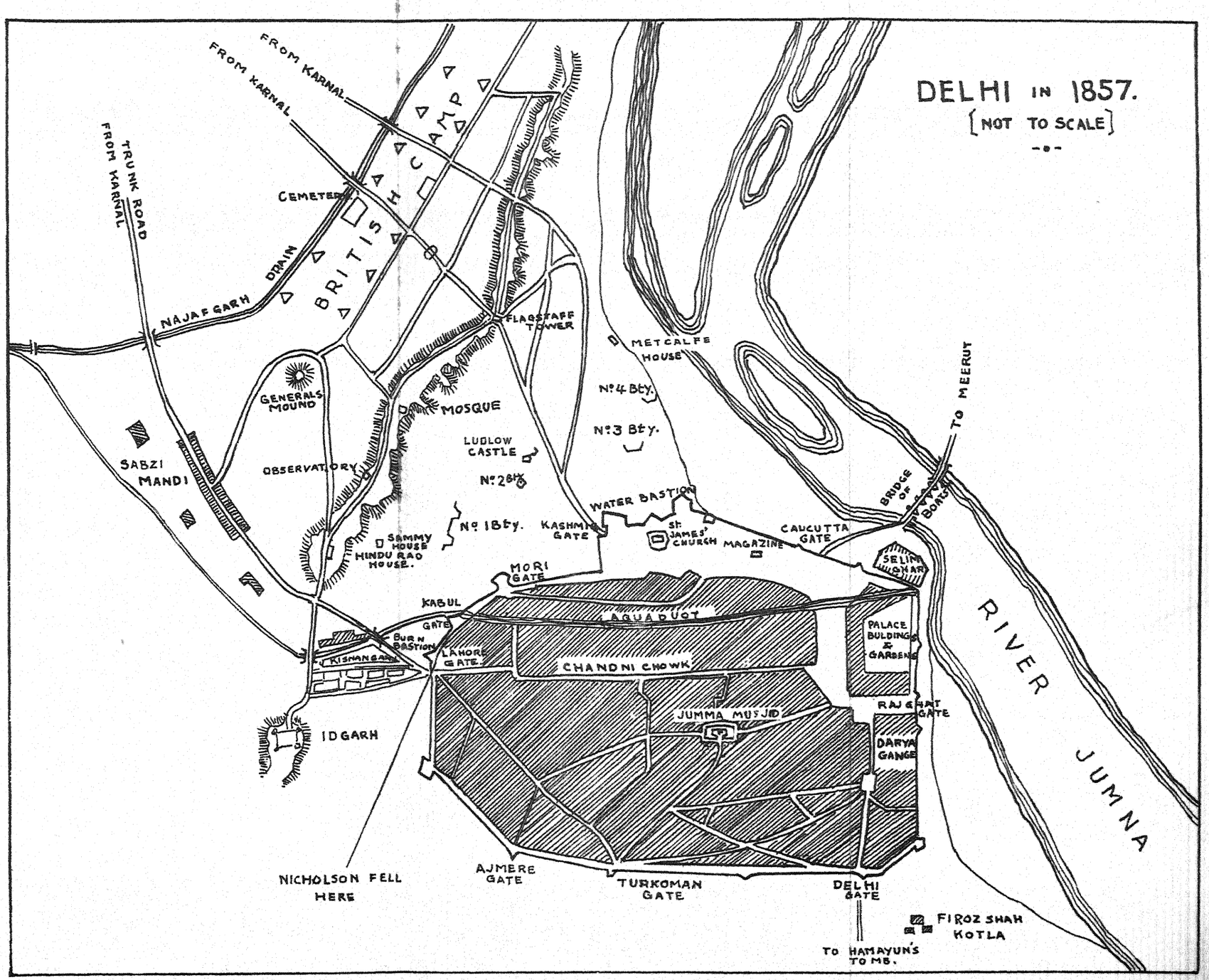
1st and 3rd Brigades, Horse Artillery.
1st, 3rd, 4th and 6th Battalions, Fort Artillery.
1st, 2nd and 3rd Companies, Sikh Artillery.
Engineers.
6th Dragoon Guards.
9th Lancers.
4th Irregular Cavalry.
1st Punjab Cavalry (now P.A.V.O.).
2nd Punjab Cavalry (now Sam Browne's).
5th Punjab Cavalry (now Sam Browne's).
Hodson's Horse.
H. M. 8th Foot (now the King's Regiment, Liverpool).
H. M. 52nd Light Infantry (now 2nd Bn., Oxfordshire and Bucks. L.I.).

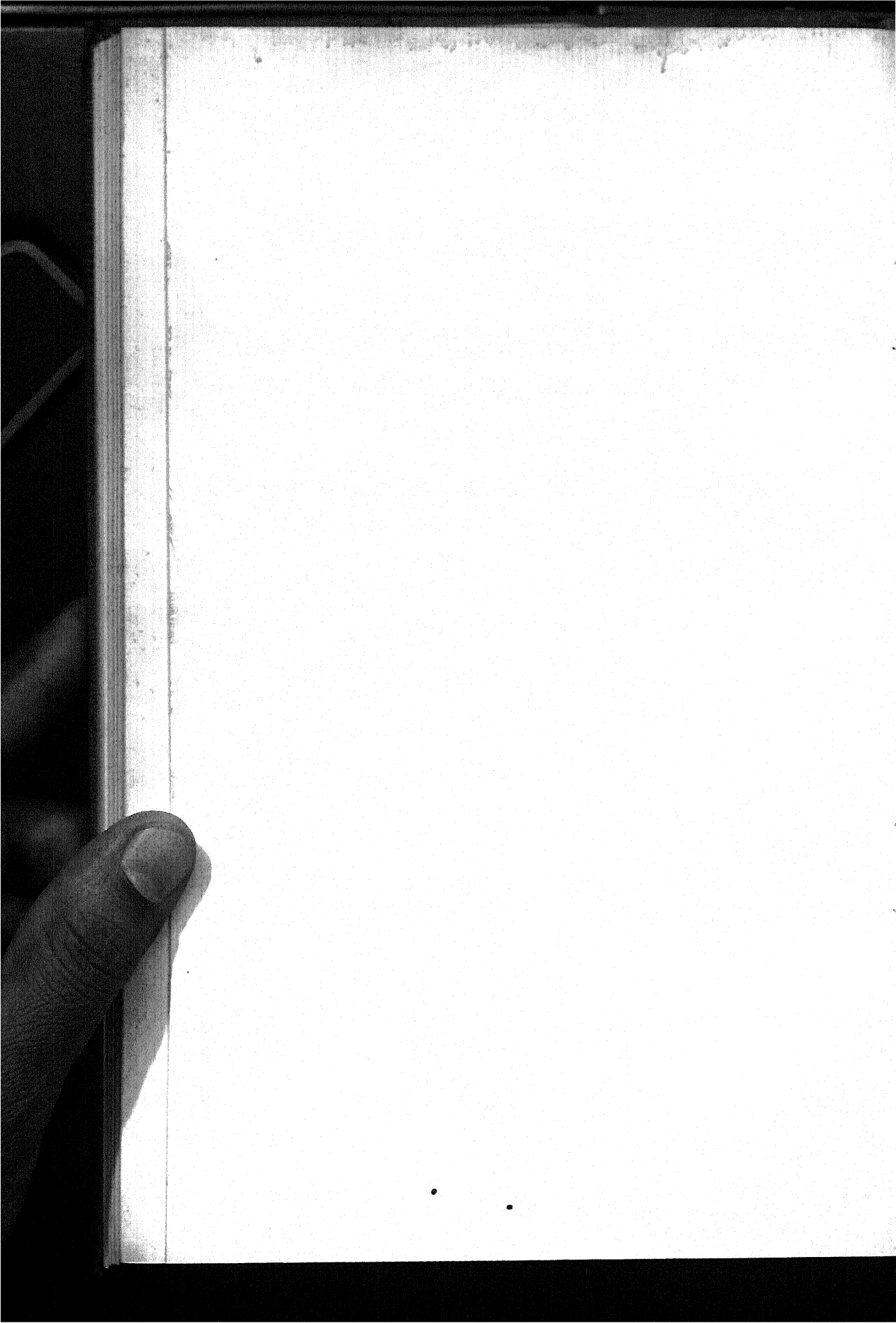
H. M. 60th Rifles (now King's Royal Rifle Corps).
H. M. 61st Foot (now 2nd Bn., Gloucester Regiment)
H. M. 75th Foot (now 1st Bn., Gordon Highlanders).
1st Bengal Fusiliers.
2nd Bengal Fusiliers.
Sirmoor Battalion (now 2nd Gurkha Rifles).
Kumaon Battalion.
Guides Corps (now Guides Cavalry and Infantry).
4th Sikh Infantry (now 4/12th Frontier Force Regiment).
1st Punjab Infantry (now 1/13th Frontier Force Rifles).
2nd Punjab Infantry (now 2/13th Frontier Force Rifles).
4th Punjab Infantry (now 4/13th Frontier Force Rifles).
Baluch Battalion (now 3/10th Baluch Regiment).
Pioneers (unarmed).

DELHI IN 1857.

[NOT TO SCALE]




DELHI IN 1857.
[NOT TO SCALE]
FROM KARNAL
FROM KARNAL
TRUNK ROAD FROM KARNAL
CEMETERY
BRITISH CAMP
DRAIN
NAJAF GARH
FLAGSTAFF TOWER
METCALFE HOUSE
No 4 Bty.
No 3 Bty.
TO MEERUT
GENERALS MOUND
MOSQUE
LUDLOW CASTLE
SABZI MANDI
OBSERVATORY
No 2 Bty.
WATER BASTION
BRIDGE OF BOATS
No 1 Bty.
KASHMIR GATE
ST. JAMES' CHURCH
MAGAZINE
CAUCUTTA GATE
SAMMY HOUSE
HINDU RAO HOUSE.
SELIMGHAR
MORI GATE
KABUL GATE
BURN BASTION
KISHANGANJ
LAHORE GATE
CHANDNI CHOWK
PALACE BUILDING & GARDENS
RIVER JUMNA
JUMMA MUSJID
RAJ GHAT GATE
IDGARH
DARYA GANJ
NICHOLSON FELL HERE
AJMERE GATE
TURKOMAN GATE
DELHI GATE
FIROZ SHAH KOTLA
TO HAMAYUN'S TOMB.



GOLD MEDAL PRIZE ESSAY, 1938

The following essay by Major A. W. Holworthy, M.C., was highly commended by the judges:

SUBJECT

"A nation's fighting power is not now merely gauged by its armed fighting strength, but also by its productive strength."

Though the close relationship between war and industry is no new factor, its importance has increased rapidly in recent years, the Great War being the first occasion on which the dependence of fighting forces on the workers behind them was universally recognised. This realisation was not due to any sudden gleam of intelligence on the part of the belligerents, but to the plain logic of facts. The increasing dependence of our normal daily life on machinery demands an increase in the efficiency of industry and the supply of raw materals. War always follows the tendencies of peace, it is hoped to show in the following pages that the dependence of the fighting machine on productive power is already absolute.

Modern developments in railways, the petrol engine and preventative medicine made possible the concentration and maintenance of unprecedented numbers in the armies of 1914—1918. But, as the Russians found to their cost, man power was not the key to victory. That key was supplied by modern weapons and equipment; it was the industrial superiority of the Allies and the lack of raw materials of the Central Powers, enhanced by the naval blockade, that conquered Germany. As foreseen by Marshal Saxe over two centuries ago, "Multitudes serve only to perplex and embarrass;" and this tendency has increased as weapons have been perfected. In addition to the growth of entirely technical arms such as air and tank forces, the older arms have themselves become more technical and more dependent on machines. God is no longer on the side of the big battalions but of the big factories.

The Abyssinians in their war with Italy suffered decisive defeats when they relied on man power and mass attacks to counter the superior equipment of their enemy. The civil war in Spain is again emphasising the predominant part now played by equipment and material. The initial superiority of the Nationalists was due to their resources in aircraft, tanks and technical weapons.

Whenever the Republican Government has seemed on the verge of losing the war, a supply of fresh arms and equipment from outside sources has enabled it to turn the tide. Countries and groups of countries are busily manœuvring for position in preparation for the next war which is on everyone's lips. The mineral resources of Spain would be of great value to Italy and Germany. Italy has gone to Abyssinia in search of raw materials, and Japan started her present campaign for the coal, iron and cotton of North China. Industry has become one of the mainstays of war; the supply of raw materials on which the productive power of industry is based has developed into a factor of paramount importance.

Assuming that modern war has developed into a national business in which every part of the nation will have to play its rôle and that on the productive strength of the nation will depend ultimate victory or defeat, what are the factors that must be considered when gauging this strength?

The following, not necessarily in order of priority, are suggested as the most important:

(*a*) Supply of raw materials,
(*b*) Industrial conditions,
(*c*) Vulnerability,
(*d*) National planning, and
(*e*) Financial resources.

It is proposed to consider the effect of these factors on productive power and to make a brief comparison in each case between the Great Powers of Europe.

Raw Materials.—The subject of raw materials covers a wide field, and is one which it is impossible to discuss comprehensively in an article of this length. The materials needed for war equipment include all the normal requirements in the way of food, clothing and medical treatment of men and animals, and material for transportation by sea, land and air. The building of communications and accommodation, including arrangements for heating and lighting, would also have to be considered in a campaign where demolitions are likely, or in an uncivilised country.

Among raw materials foodstuffs play an important part.* Now more than ever before, in view of the direct attacks likely to be

*Mr. Lloyd George writes in his *War Memoirs*:
"It was becoming a war of starvation. In the end meagre and mean feeding at last subdued the spirit that had for four years of sanguinary battles proved indomitable on every front. Food in all the belligerent countries was therefore, at the end of 1916, becoming a growing, and as it turned out, a paramount element in the chances of victory."

launched against the home front by means of air raids, wireless propaganda and other means, and in view of the vital importance of industrial and agricultural labour, the morale of the civilian must be kept high; an adequate food supply is one of the necessary factors in attaining this object.

As regards other raw materials there is no weapon, article of maintenance, vehicle of transportation or means of communication used in modern war which does not depend in some, if not in all its aspects, on normal peace time industry. The great extent to which the results of a modern campaign depend on an adequate supply of raw materials (in this connection the term raw materials includes synthetic products) can therefore be realised.

Great Britain's weakness as regards food stuffs is well known. She imports some 60 per cent. of her food, totalling twenty million tons a year; 56 per cent. of her meat, 85 per cent. of her flour, 80 per cent. of her sugar and 85 per cent. of her milk, butter and cheese come from abroad.

There are ample supplies of coal and iron in the country and large quantities of copper and rubber are found within the Empire; but cotton and oil, especially the latter, are lacking. Great Britain uses over ten million tons of oil a year in peace, and her war needs will be greater. The amount which she can store or produce from her native coal is totally insufficient, and the recent troubles in Mexico have not made matters any easier. In respect of cotton, the situation is rapidly improving, thanks to the Empire Cotton Growing Association.

From the above it can be seen that Britain is in no sense of the word self-contained. To balance this, her control, both physical and financial, over the sources of supply of several important raw materials such as coal, gives her great influence over neutrals in war, and increases the difficulties of her enemies. Great Britain has not in the past paid much attention to synthetic products as she has always relied on her Imperial resources and the security of her communications. She is, however, now spending considerable sums in the production of motor spirit from coal, gas and vegetable oils, and is also carrying out research in the provision of power by means of wireless waves.

France is an agricultural country and is well enough off for food stuffs although she imports wheat. She is nearly self-sufficient in coal, and has a surplus of iron with which she can pay for some of her chief imports which are oil, rubber, cotton and copper. Her oil supplies come from America, Iraq, Roumania

and Russia. She is trying to find sources nearer home and is busy exploiting what may be rich oil fields in Morocco. She is also engaged in the synthetic production of a motor spirit from wood and charcoal. A French engineer has invented an apparatus called a "gasogene" for this purpose (mentioned in *The Dangerous Sea* by "Salocombe") and the Republic is spending large sums on its development.

In 1936 Germany started a four years' plan to lessen her dependence on imports of food stuffs and other raw materials. She has a surplus of coal which is exported and a good supply of low grade iron ore which is now being developed by a State company, but the country is entirely dependent on imports for cotton, oil, rubber and copper. The recent absorption of Austria has given Germany access to more raw materials; and it is also to be observed that she is more advanced than others in the production of synthetic materials owing to experience obtained under conditions of blockade in the Great War.

Thanks to Mussolini, Italy in 1935 was for the first time self-contained in wheat; but she is still deficient in the essential raw materials, coal, iron, oil, copper, cotton and rubber. The conquest of Abyssinia may perhaps change this situation for the future, as oil, coal and iron are said to be found in the interior, and cotton can be grown near Lake Tana. But despite a great development in hydro-electric plants, Italy is still in urgent need of coal, and imports ten million tons a year. Albania, for all intents and purposes an Italian protectorate, is said to have oil deposits and an oil refinery has been set up at Vallona. "Sanctions" gave a great fillip to the development of synthetic products but, despite scientific efforts, they are not sufficient for the increasing population. Italy has no surplus with which to bargain, and of all the Great Powers of Europe is the worst placed as regards raw materials with the exception of mercury and bauxite.

The Soviet Government by means of her two Five-Year Plans is aiming at self-sufficiency. At present she is partly dependent on imports for copper, and wholly dependent for rubber, but she needs no coal, iron, cotton or oil from abroad. Of the last named commodity she has a large surplus with which to bargain. Her native supply of food stuffs is now ample, and great attention is being paid to synthetic products, especially rubber.

Industrial Conditions.—An adequate supply of raw materials is of little value unless full and speedy use can be made of it. To achieve this the factors which are of importance as affecting

the efficiency of industry, are harmonious labour conditions, capacious and up to date factories and plant, and ample supply of skilled and unskilled labour, and power of expansion combined with speed of production.

Harmonious labour conditions imply good feeling between employers and workers, adequate wages, decent housing and proper hours of work. These are serious considerations in any country where there still exists personal freedom and freedom of speech. The Great War proved that patriotism is no panacea against labour troubles. Strikes were frequent in Great Britain, and the vexed question of dilution of skilled labour caused much unrest and a consequent falling off of production. Poor wages, long hours of work and similar factors give opportunities to agitators who may be in the pay of the enemy.

The value of modern factories and plant is obvious. The production of present day aircraft, tanks and technical weapons demands highly efficient plants; makeshift and adapted machinery will not suffice as the ensuing time lag cannot be afforded. The lack of skilled labour will neutralise the advantages conferred by modern factories and plant. It is understood that in the great aircraft expansion which has recently taken place in Great Britain the chief difficulty has not been in finding raw material to make the aircraft or the human material to fly them but the technical personnel to construct and maintain them. A reserve of skilled personnel is the product of years of training and cannot be improvised. The problem of man power is outside the scope of this paper, but it is obvious that man power for war must be organised and that personnel must be placed where it is of the greatest value to the national machine. To enlist skilled workmen and key-men unrestrictedly in the combatant branches would be folly.

A study of the history of the ministry of munitions or of any of the other ministries started in the Great War will make clear the enormous expansion demanded in any national effort. This again is a matter for foresight in peace both in the lay-out of plants and in the provision of machinery as the time lag due to improvisation may be disastrous.

Speed of production is affected by the amount of security afforded the workers from hostile attack. This is dealt with later under the heading "Vulnerability." The outstanding feature to be stressed when considering the conditions of industry is the vital importance of foresight and national planning in peace.

From the point of view of war a democracy suffers great disadvantages in respect of labour conditions compared with a totalitarian state. In the latter workers who strike or do not produce the maximum output are given short shrift—under a democracy they have to be more gently handled. In Great Britain the prosecution of a war unpopular with labour would probably suffer great difficulties in the supply of war equipment and the transportation and maintenance of the fighting forces. This problem is not likely to arise in a country where there is no free public opinion.

Great Britain has well equipped and modern factories and plants, but many of them are located in places vulnerable to air attack. Her machinery is world famous, and with an ample and close supply of coal and electric power stations the provision of industrial power is excellent. The youth of the country possess a natural aptitude for machinery.

Rationalisation and the modern tendency to large combines facilitate expansion and speed of production, while the troubles of expansion in 1914—1918 afford a solid basis of experience In general Great Britain has enormous latent potentialities in industry; but to make the fullest use of it a national organisation, as advocated by Mr. Churchill, is considered to be essential.

The present labour conditions in France are not very satisfactory. There have been a large number of industrial and other strikes, mainly of the "sit down" variety in which the naval and commercial shipyards have been seriously affected. When the Popular Front was in power several important concessions were given to workers which may have to be modified in war.

As a democracy, France suffers from much the same disadvantages as Great Britain. But she is well equipped with modern plant and has a sufficient supply of labour, though being an agricultural country she might have a lack of skilled technical labour in time of expansion. Based on a national planning organisation of some years' standing, France has worked out the requirements of an economic mobilisation, and is probably in advance of other democratic nations as regards powers of expansion and speed of production.

In all the totalitarian states—Germany, Italy and Russia—labour has been conscripted and industry organised on a national basis. The switch-over from peace to war conditions would involve little dislocation. There is not likely to be any hold-up of production by labour in any of these countries, unless revolution raises its head in the event of defeat. Germany before the

rise of Hitler had a powerful Communist party. Though this is said to have been liquidated, its roots are probably still in existence. The same remarks apply to the Trotsky party in Russia.

All three countries are well equipped with modern factories. Germany is well off in skilled workers, especially in the aircraft factories where her foresight in turning her energies early to commercial flying has borne good fruit. Italy has an ample supply of skilled aircraft mechanics, shipbuilders and road makers. Russia has a lower percentage of skilled workers, but has recently improved her position in this respect.

Vulnerability.—This factor can be divided into three: vulnerability of the source of supply of raw materials; vulnerability of raw materials *en route* to factories; and vulnerability of the factories themselves.

It is clear that the first object must be to obtain control over the source of supply. This may be financial control, such as Great Britain has over the oil fields of Persia and Iraq, or physical control. Financial control is obviously the less satisfactory as it may be of doubtful value in war.

The safety of raw materials *en route* to factories is one of the main considerations in the defence problems of all the Great Powers. Control of sources of supply is of little value if raw materials cannot reach the factories. Lines of communication must be shortened or eliminated, and this means that factories must be placed on or near the sources of supply. On the other hand these factories should be near the places where the finished product is required, that is near the naval, military and air bases in time of war.

Both labour and factories must be made as safe as possible from hostile attack. Revealing figures are given in "Air Power and Cities" by Spaight of the effect of the Allied air attacks on the German industrial centres in the Rhine valley in 1917-18. The mere threat of air attack causing the alarm signal is enough to effect a severe diminution of output; a series of attacks closely following each other can virtually close down production, though little damage may be done to the plant or personnel. This factor runs counter to the factor of accessibility mentioned above. It may often be easy enough to hide or disperse factories, but they are valueless without roads, railways or other communications. Another aspect of the vulnerability of factories must be considered, that is the possibility of sabotage, and the breakdown of production due to faulty conditions of labour, already discussed. This

factor of vulnerability is a very serious one, and its importance in view of aerial attack is likely to increase.

The sea centrality* of Great Britain is well known. Air transport can never take the place of sea transport, though it may lessen its burden.† Upon the Navy and the Mercantile Marine, and to a lesser extent the Royal Air Force, depend the security and maintenance of the sea-borne communications along which pass the food and raw materials for Great Britain. In war these communications are used for the concentration and maintenance of the Empire's forces. In contrast to the more easily protected internal land communications of other countries, these sea communications are now, owing to developments which have occurred since the Great War, more vulnerable than they have ever been before. Despite the reduction of the German Navy, the superiority of the Royal Navy over other navies of the world has decreased and so has the ratio of Great Britain's Mercantile Marine to the rest of the world' shipping.‡ At the same time the potentialities of air and submarine attack are greater.

In the Mediterranean from 1914—18 the losses of British shipping were severe despite the fact that enemy submarines were few and had no secure bases apart from Pola. Italy, in view of her aspirations to regain the mastery of the "mare nostrum" of the Romans, has enormously increased her naval strength of recent years. In the western Mediterranean the Balearic Islands and Sardinia form suitable air and submarine bases: in the middle Mediterranean the naval and air bases in Sicily and Pantellaria threaten the narrow passage between Sicily and Cape Bon: and in the eastern Mediterranean the fortified bases of Rhodes and Leros, in the Dodecanee, flank the entrance to the Suez Canal. It seems most unlikely that in the face of Italian hostility our

*"The island of England lies wholly in the sea and yet at the precise centre of all the lands of the earth. No other spot on the globe either fulfils or can ever be made to fulfil these two conditions. Turn the globe as you will, contrive and consider as you please, in the end the hard geographical fact will remain that England, alone of all the communities of men, has the sea centrality of the world." *The Strength of England*, by Bowle.

†See Whitaker's Almanac. All the aircraft of the world in twelve months carried 1½ million passengers and 20,000 tons cargo, the equivalent of 100,000 tons cargo. Great Britain needs over one million tons a week.

‡At the beginning of the twentieth century 50.2 per cent. of the world's steam and motor tonnage belonged to Great Britain; now it has fallen to 33.1 per cent. The Merchant Navy has declined by three million tons gross in the past five years—the number of merchant ships in 1914 was 9,240; it is now 7,246 (figures from "British Merchant Shipping To-day"—*R. U. S. I. Journal*, February 1937).

trade routes in that sea could be maintained without severe detriment to any offensive action we might wish to take ourselves. Our naval and air forces must be left free to carry out any offensive rôle unhampered by protective duties. It appears therefore that the Cape route must again become the highway for our commercial shipping to the East in the event of hostilities in the Mediterranean, though the disadvantages caused by the longer distances and extra tonnage are obvious. This does not imply that we can afford to abandon the Mediterranean to any Power wishing to establish itself in Egypt or Palestine.

As regards other seas, Italy is forming a strong naval base at Massawa in the Red Sea, while the new Italian Empire in Africa gives her access to the Indian Ocean and side-steps Aden. In the Pacific, Japan by virtue of her geographical position is the predominant Power.

In general, therefore, the sea communications of Great Britain are considerably more vulnerable than in 1914, and the implications of this fact on her powers of production must be realised.

Turning to the vulnerability of her plants and factories Great Britain's position has become worse as the potentialities of aircraft have increased. Formerly there were many advantages in the concentration of industrial works in Great Britain itself, where there was sufficient labour with ample coal and iron close at hand. Steps must now be taken to disperse these factories. Key industries must be developed in the Dominions and India to meet requirements in any theatre of war, and to ensure that the burden on sea communications is lightened. India is the obvious base for any war east of the Mediterranean; the first steps were taken with the establishment of an Indian Stores Department in 1922, and the post of Master-General of Supply in 1924. The United Kingdom, India, and all the Dominions now have Principal Supply Officers' Committees working in close touch with each other and with civil industries in their respective countries. The basis has, therefore, been prepared in peace for liaison in war between Service requirements and industry. Each Dominion is ready to undertake that production for which it is best fitted through availability of labour, raw materials and power.

France's sources of supply and industrial areas can be attacked by air from bases in Germany, Italy and Spain. The minerals of Lorraine lie close to the frontier, as also the coalmines and iron ore of Northern France.

The sources of supply in Africa can be menaced by native unrest, backed, in the case of Tunisia and Algeria, by an Italian invasion from Libya or the sea.

The main interests of France lie in her sea communications with her African Empire. Her land and air communications with Africa depend largely upon Spain. The shortest route by land is via Madrid, Algeciras and Spanish Morocco, while French air services normally halt at Barcelona and Alicante. Whoever holds the Straits of Gibraltar can separate the French Mediterranean and Atlantic fleets, and a scheme is now being considered to carry out the old project of joining the two seas along the course of the Canal du Midi, via Bordeaux-Toulouse-Narbonne. The sea communication between the south of France and her African possessions is the shortest one and the one best served by her African railways; but is also the one which can be the most easily threatened by Italian bases. The journey from the Atlantic ports of France to those of Africa, Port Lyautey, Capablance and Agadir, is longer and would use up much valuable shipping.

The sea route by which oil comes to France from Tripoli in Syria is an important one, and is exposed to attacks from the Italian bases in Rhode and Leros. With regard to communications with Indo-China, France has realised the difficulty of supply from Europe, and in Tonkin steps have been taken so to organise the colony that it can be independent of overseas imports. Certain industries have been subsidised, and the railway to Yunnan Fu taps the Yangtse valley.

Germany's native sources of supply are open to air attack from the east, south and west, but she has ample space in which to disperse them and her road and rail communications are excellent. The loss of her colonial Empire has released Germany from the problem of securing a lengthy sea route. She imports large quantities of cereals and oil from the Danubian countries as well as copper, lead and bauxite, and her communications with these countries have been improved by the absorption of Austria.

Italy's long coast-line and lack of breadth lays her home factories open to hostile attack from ships and sea-borne aircraft. The conquest of Abyssinia has increased her overseas commitments. Italy's efforts to gain supremacy in the Mediterranean have already been mentioned, but she must still be prepared if she fights Great Britain to be cut off from all waters outside the inland sea. Even there Greece and Turkey, especially the latter, are suspicious neighbours in the east; Cyprus and Alexandria

menace the route to the Red Sea and Libya, and the recent Montreux Convention makes possible the presence of a Soviet fleet from the Black Sea. Italy is, however, supreme in the Adriatic and can close this sea at the narrow gate between Brindisi and Albania. Her communications with the latter country are secure, though there may be possibilities of air attack from bases in Greece and Yugoslavia.

The communications of Russia are internal, and security is, therefore, easy to ensure. The Russian Far Eastern Army can now be said to be self-contained since bases have been formed in Eastern Siberia where natural resources, both agricultural and industrial, have been greatly developed. Remembering the lessons of 1905 the Soviet Government has double-tracked the Trans-Siberian Railway, thus facilitating the supply of personnel and material from western Russia if required. Russia's vulnerability in war lies in the possibility of internal unrest and sabotage combined with a national inability as shown by past history to maintain administrative efficiency. It is possible, of course, that this latter failing was the monopoly of classes which have now been liquidated.

National Planning.—In a war of the first magnitude concentration of effort is essential for victory. Every phase of the nation's life must come under a central control—man power, food supply, finance, munitions, shipping, railway and road transport, propaganda, and insurance. Economic mobilisation is as necessary on the outbreak of war as mobilisation of the armed forces, and requires even more detailed planning and organisation in peace. This fact has already been recognised by many countries, and such organisation is inherent in the totalitarian states.

It has been suggested that national planning presupposes a war of endurance, and that a lengthy war is unlikely in view of the slaughter and destruction which modern weapons can now encompass. Those who prophesy this envisage a war of a few weeks' duration, and maintain that national planning for expansion is, therefore, a waste of time, since it can only prolong the agony. This view seems opposed to the lessons of history and common-sense. In 1914 the same belief was held by both sides, but antidotes were found to new weapons and mankind's powers of endurance and adaptability exceeded all expectations. Events of the last few months have not borne out the claims that whole cities would be blotted out in a few hours and all navies sunk in a few days by aircraft. Madrid, Barcelona and Canton still exist, and Chinese aircraft have done little damage to Japanese men-of-

war even at anchor. In Spain tanks have proved very vulnerable to anti-tank weapons. National planning is the only means of harnessing the full productive powers of a nation, and it is a factor of vital importance when considering the productive strength of a country.

When the British rearmament programme was started in 1936, certain steps were taken, such as the appointment of a Defence Minister and the setting up of a Food Department within the Board of Trade and a national organisation for aircraft manufacture. Powerful advocates have stressed the need for a Minister of Supply, but this has not been agreed to by the Government. The country has the experience of 1914—18 to fall back on, but outwardly little seems to have been done in comparison with other countries. To trust to the time-honoured habit of "muddling through" with all the time lag it involves seems criminal folly.

In past wars Great Britain has always relied on her powers of improvisation backed by her great material and financial resources. For such improvisation she has required time, and this has been given her by the bravery and tenacity of her armed forces. She has never been prepared for a war, but has had to make her preparations behind the sure shield of her navy, while her regular army has been sacrificed in bearing the brunt of the enemy attacks.* With the advent of aircraft this traditional policy offers little hope of success. It is common knowledge that any chance of victory over Great Britain recedes the longer she is allowed to organise and draw upon her great resources. An immediate air offensive against her industrial areas, and communications may be confidently expected. To minimise the effects of such an attack, national planning is necessary on a large scale. Adequate precautions will take time and will increase demands on raw materials and industry.

As regards France it may be said that for several years she has recognised the necessity for economic mobilisation and national planning, and now has a complete organisation ready to be put into action in the event of war.

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*In 1916 Mr. Lloyd George informed an American Press correspondent: "There is neither clock nor calendar in the British Army to-day. Time is the least vital factor. Only the result counts, not the time consumed in achieving it. It took England twenty years to defeat Napoleon and the first fifteen of these were black with British defeats. It will not take so many years to win this war, but whatever time is required, it will be done."—*War Memoirs*, Vol. II.

All the totalitarian states are organised on the assumption that the prime function of industry and agriculture is to strengthen the country for war. Industry and agriculture are built into the national structure, and their potentiality strengthened by various four and five-year plans. The advantage thus gained over democratic states in the early phases of war is hard to overestimate.

Financial Resources.—The advantages conferred on productive power by good credit based on financial strength are so obvious as to call for little comment. The financial control of foreign sources of supply has already been mentioned. Whenever needed raw materials, machinery, manufactured goods, weapons and war equipment can be bought without difficulty. Loans can be arranged, outside labour engaged, and sources of supply and raw materials exploited.

It must be realised, however, that while the smaller nations generally depend on foreign financial backing before they can contemplate hostilities no Great Power has ever been prevented from fighting a campaign because she could not afford to do so. Prophecies as to the financial breakdown of Germany shortly after the start of the Great War, and of Italy after the commencement of the Abyssinian campaign were completely wrong.

In a totalitarian state, in direct contrast to a democracy, many a so-called economic law is flouted with impunity. Dictators can prevent the flight of capital, can create internal credit by propaganda and can pay for imports by transacting outside business on a system of barter. It still remains to be seen how long external credit can be maintained by such methods.

The financial strength of Great Britain is well known. One of the banker nations of the world, her credit stood the test of the 1929—31 depression better than that of any other country. The Empire is the largest producer of gold in the world, and London is still the financial centre of the world's markets. As long as the present capitalist system exists the financial supremacy of Great Britain stands assured.

In contrast, French finances have for years been in the doldrums. Being a democracy France cannot settle her internal financial troubles by the simple methods used in a totalitarian state. Despite this, however, her natural resources and hoarded gold would enable her in war, for a period at least, to buy what she needs, and to obtain loans.

The internal credit of Germany is merely a matter of manipulation. As regards external credit she has employed a system

of barter with successful results. Great quantities of raw material are imported from the countries in the Danube basin, and being unable to pay for these in cash she pays in merchandise, industrial machinery, and manufactured goods of all kinds. By this method of commercial penetration Germany has now a dominant hold in Yugoslavia and Bulgaria, and is increasing her financial grip throughout south-eastern Europe. She has also reduced her internal standard of living, thereby decreasing the demand for imported goods.

The financial state of Italy is hard to determine, but it is quite possible that it is not as unfavourable as is sometimes imagined. Internal credit is a matter of manipulation as with Germany. External credit is a more difficult matter owing to the lack of native resources and the heavy external expenditure of recent years. The recent capital levy was an effort to restore finances damaged by the large sums spent on the exploitation of Abyssinia and the maintenance of the legionaries in Spain. By reducing the standard of living, increasing the internal production of food stuffs, instituting hydro-electric power schemes, and subsidising synthetic products, dependence on imports has been greatly decreased. If, as is hoped, gold-mines exist in the interior of Abyssinia, a welcome fillip will be given to the external finances of Italy.

By means of her two five-year plans Russia has built up an industrial machine sufficient for her normal needs. At the price of famine she has paid for industrial imports with agricultural products. She has very few foreign investments and her commercial debts have been reduced. Russia is the second largest gold producer in the world and possesses large untapped resources in Siberia. She can thus find gold to buy the few imports she needs, and her internal credit is state controlled. As long as her present policy of avoiding large scale foreign expansion holds good, the financial resources of the country seem favourable.

The writer realises that there are many factors affecting productive capacity which have not been mentioned, but a paper of this nature cannot be exhaustive. It is hoped that sufficient has been put forward to show that a nation's war strength cannot be divorced from her industrial strength. While it is quite possible to be industrially one of the most powerful nations and at the same time one of the weakest in respect of fighting forces, a position to which at one time Great Britain seemed to aspire, the converse in these days is not true. It is now impossible to gain

even a short-lived supremacy as a warrior nation without an industrial foundation. This industrial foundation, if it is one which is to be capable of bearing the great burden of a national war, must be strongly formed and of solid structure built with the proper materials. This demands well-conceived and far-seeing architecture planned and carried out in times of peace. Owing to the rapidity of air attack which can be expected to open hostilities, no dependence can be placed on improvisation in war. "Wise is he who looks forward," and wise the nation which carries this motto into practice.

"REVISED VERSION"

By "Crank"

Happily for an already overburdened humanity it is only on rare occasions that I am constrained to seize my pen, and still more rare is it for any editor to print any such effusion. I feel, however, that there are certain points arising from the recent article by my old friend, "Museum Piece," which merit consideration. As it is presumably the policy to mechanize all British Cavalry units in India, it is only proposed to deal in this article with the Indian cavalry distributed as at present in three groups each of six active and one training regiment, with particular reference to the suggestions made by "Museum Piece."

Stated briefly, the suggestion is that the remaining sixteen horsed regiments shall be reorganized so that each shall contain one light tank and three sabre squadrons; the latter to be re-equipped so as to render them more mobile when dismounted. In spite of the very able arguments put forward, it is felt that the mixing of the light tank and the horse in the same unit is open to very grave objections which more than outweigh any advantages which might result. The complications which would ensue from this organization are many, of which only a few will be mentioned.

Recruit training.—The officer commanding the training regiment will have to compete with recruits for up to six mechanized squadrons each of a different unit, and up to eighteen horsed squadrons spread over six units. Would the training be in a "mechanized wing" and a "horsed wing," or would each training squadron deal with both types of recruit? Another alternative would be to have a mechanized depot to train recruits for the light tank squadrons, while the training regiment of the group deals with the recruits for the horsed squadrons—most unsatisfactory as the officer commanding the active regiment would have to deal with *two* recruit finding units instead of one.

Training within the regiment.—The commanding officer of the active regiment, who already has quite enough to do, would have to go into the details of the tactical handling of light tank squadrons and horsed squadrons. This in itself is perhaps no grave objection; but what is worse he will have to supervise the training in, and handle, the following weapons: machine-guns and anti-tank guns in light tanks, and possibly also their equivalent on horses; light machine-guns; rifles; bayonets; pistols—a

long list. In addition, there will be the differing types of signal requirements for the light tanks and the horsed squadrons.

Allotment of classes.—Will one class throughout each group be chosen to be turned into light tank squadrons, or will different classes in each active regiment be chosen? Before the first alternative is adopted, the reaction on the classes not chosen, and any possible political repercussions must be considered; the second alternative must further complicate matters for the officer commanding the training regiment.

Movement.—For strategical and peace time training marches the problems of the unit commander will be gravely complicated if one of his squadrons can march 100 miles a day at an average pace of 12 miles per hour, while the remaining three march 30 to 40 miles a day at 5 miles per hour. To make the horsed squadrons march at the same pace as the light tanks is impossible; to tie the tanks closely to the horsed squadrons is uneconomical; perhaps the solution is for the light tank squadrons only to march every other or every third day! For tactical movement on the battle-field the difference in circuit of action and pace might not be so great; but all the same there must be differences which will not make matters any easier for the unit commander.

Tactical handling.—The fact that one quarter of the regiment has certainly greater range, and in a number of cases greater speed, must lead to greater dispersion, with an increased danger of resultant lack of control. Will the unit commander remain with his three horsed squadrons while the light tank squadron goes off—thus separating himself from the most powerful part of his unit, indeed from the only portion which possesses any punch; or will he accompany the light tank squadron on what may be a wide circuit thus running the risk of divorcing himself from numerically the greater part of his command? Both alternatives seem inadvisable. The suggestion seems to regard the light tank squadron as existing solely to protect the three mounted squadrons; or that it shall be used in a manner somewhat similar to that in which "I" tanks are used. For this light tanks are not fitted either in armament or speed.

Finance.—We all know only too well the extent to which everything in India, and more particularly the Defence Services, are circumscribed by finance. Will not the mixed regiment organisation cause an impossible increase in the running expenses of the Indian cavalry? It would demand largely increased "mechanized installations," with little or no compensating reduction in the "mounted installations" or transport to maintain

the horsed units. From this point of view alone, is the suggestion practical politics?

It is claimed that the horse and the light tank are complementary, and that ground reconnaissance for tanks is better done if both are of the same unit. Both of these, though true, are overstatements, and the first, if carried to its logical conclusion, would almost mean the inclusion in each unit of artillery as well! Co-operation of arms and mutual assistance is necessary at all times, and can be achieved by working together and by careful training; it is not necessary to lump together in one unit everything that may be required. The desired result can be achieved by including the various arms in balanced proportions within formations, not within units. If the powers that be decide that the future role of the Indian Army calls for both mechanized and horsed cavalry, let us by all means have both types in the quantities dictated by the role and permitted by finance. But let the *units* be homogeneous as regards pace and armour, and not, to misquote Kipling—

"a kind of a ruddy harumphrodite"
"horseman and tankman too."

Having demolished to our own satisfaction (though perhaps not to his) the case for the mixed regiment put forward by "Museum Piece," let us examine his views on light tanks to see whether these vehicles have not been painted in darker colours than they deserve. He bases his antipathy to any considerable conversion of Indian cavalry to light tanks on three main factors: their sensitiveness to ground, the difficulty of detailed ground reconnaissance, and the chance that enough suitable men will not be available to find crews. Admittedly light tanks are sensitive to ground, but there can never be a vehicle which will go everywhere at all times; there must be some places where the light tank cannot go and cavalry can go, but the converse equally applies. His imaginary conversation between the two rival protagonists rather stresses conditions on the North-West Frontier. Is not this a slightly parochial outlook: is the Indian Army always to fight on the Frontier and nowhere else; is it never likely to be required to take its part elsewhere with other forces of the Empire; are we justified in keeping comparatively large numbers of horsed cavalry solely for use on the Frontier? In the particular instance cited cavalry would be most useful in piqueting the low foot-hills of wide valleys, but is it beyond the bounds of possibility that the duty could be done by men in carriers—if possible armoured? So far the sole weapon of the

tribesman is the rifle, had he some machine-guns or light machine-guns the position of the cavalry would not be quite so happy. Equally had he some anti-tank weapons the position of the tanks would not be so comfortable! Recent operations on the Frontier have shown the great value there of light tanks, and even the comparatively old ones now available have shown their cross-country capacity to be greater than was expected. If any further mechanization of Indian cavalry is to be carried out, it is to be hoped that the machines issued will be the newest and best which can be obtained; the army in India has suffered too long from obsolescent material. This, combined with training, forethought and measures to palliate the defects from which no instrument can be free, must go far to diminish the sensitiveness to ground on which "Museum Piece" hangs so much of his argument.

The difficulty of detailed reconnaissance is one which sounds very nice at first but will hardly bear close examination. Except at night, or within a thick wood or village—when in any case the patrol will have to dismount from its vehicle, be it horsed or tracked carrier—detailed reconnaissance does not entail going so close to one's enemy that it is possible to determine whether or not he has a red nose! In nine cases out of ten it consists in a patrol being fired on from some feature at a greater or less range: conditions are seldom so favourable that a partol can reach its objective unseen; since reconnaissance consists largely of drawing fire, surely—given equal or nearly equal cross-country capacity—one is no worse off in an armoured carrier than on a horse, more particularly since if necessary fire can be opened from a carrier?

The theory that the type of man now enlisted into Indian cavalry cannot be turned in large numbers into a mechanized cavalry-man, is one upon which the opinions of the officers commanding 13th D. C. O. Lancers and Scinde Horse would be both valuable and interesting. From what has been heard the men of both units are taking to the new conditions extremely well; but it is felt that the commanding officers would with all justification resent most strongly any suggestion that their men are in any way inferior in type to those of the other sixteen regiments. Although of the same good stock, the average recruit of the present day when he joins is considerably better educated than that of twenty, or even ten years ago. Admittedly his education is by no means complete, but if taken as he will be from the day he joins and properly taught there seems no reason why he should not be capable of driving a tank and firing a machine-gun therefrom. This will be one of the most important duties of the training units.

The supposed lack of education of the potential rank and file if properly handled can be only a bogey and no serious obstacle to further mechanization. It is fully realised that there is a type of personnel for whom greater education is required, and for whom it *may* (note the stress) be necessary to go to the town rather than the village; these, however, will be the artificers whose province will be maintenance and repair rather than actual fighting.

Hitherto these views seem to have been diametrically opposed to those of "Museum Piece;" but for his suggestions regarding the re-equipment of any horsed units remaining there can be nothing but praise. Armed and equipped in this way, they could act mounted, dismounted, or even (if required) get inside a tank as relief machine-gunners! With this and similar ends in view, periodical attachments to the mechanized units of personnel of all ranks from the horsed units would be most valuable.

No organization can ever be ideal; we must aim at the best which can be devised to do the job in hand, with the money available. If mechanized cavalry can fulfil equally well at a lower cost the roles likely to fall to it, the retention of large numbers of horsed cavalry is not justifiable. If the role of the Indian Army is likely to require some horsed cavalry, this could be met by retaining a small nucleus of regular horsed units, and training and equipping Indian States Forces' units on similar lines to increase the numbers; though whether the rulers of states would react favourably to the idea of turning their cavalry regiments into "mounted gangsters" is impossible to say!

The fact, however unpleasant it may be, has to be faced that mechanization has come to stay. Further mechanization of the Indian cavalry seems possible, or rather probable; but there is no reason why it should not be in every way a success. If there are to be different types of unit, *e.g.*, light tanks and armoured cars, it should be arranged if possible for complete units to be interchanged periodically so that an officer may, at least once in his career, serve with each type. For the rest, let there be the best vehicles obtainable, plenty of them to train with so that interest may not be allowed to flag, and above all the will on the part of all ranks to make the new regime a success.

A FORGOTTEN CAMPAIGN

The Capture of Kandy, 1815

By Major M. E. S. Laws, M.C., R.A.

Of the British Army's numerous campaigns in the East none has been so completely neglected by the military historian as the Ceylon War of 1815. Few published works mention this campaign and even Fortescue's monumental History of the British Army gives but few details. In fact the only sources of information concerning the Kandyan War are the Colonial Office Letter Books, Regimental Muster Rolls and the Proceedings of the Prize Committee, all of which are kept in the Public Record Office, London. Yet the campaign, though bloodless and short, deserves consideration as an excellent example of the careful preparation necessary to overcome the difficulties of fighting in a mountainous and almost unknown country in a tropical climate.

During the summer of 1795 a force from India under Colonel J. Stuart stormed Trincomalee, and in February 1796 the Dutch surrendered their settlements in Ceylon to Britain. Two years later the new colony was transferred from the administrative control of the East India Company to that of the Colonial Office. Before the Royal troops had relieved the Company's units however, war broke out with the King of Kandy who had remained in control of the whole of the interior of the island. A British force advanced and captured Kandy without serious difficulty, but in June 1803 the garrison which had been left in the city was attacked and massacred almost to a man. The war dragged on for nearly two years and only came to an end when the British decided to leave the Kandyans undisturbed.

For the next ten years the situation remained more or less unchanged, with the British in control of the coastal region and the Kandyans supreme in the interior. But towards the end of 1814 raids into British territory became frequent and the attitude of the King of Kandy more arrogant. By his cruelty and oppression the latter had driven even his own submissive people into revolt and the Governor and Commander-in-Chief of Ceylon, General Sir Robert Brownrigg, applied to London for permission to undertake punitive measures when they became necessary. Before a reply could be received an incident occurred which made war inevitable. On 30th October 1814 ten British subjects were arrested by the Kandyans, barbarously mutilated and driven back over the

frontier with their severed arms, noses and ears tied round their necks. Incredible though it sounds, two of these wretched men survived to tell their story to the British authorities, and General Brownrigg immediately began preparations to avenge the outrage.

The garrison at Ceylon at that time consisted of the following units:

Royal Artillery

Captain R. F. Cleaveland's Company, 4th Battalion, R.A. (now 17th Field Battery R.A.)—at Trincomalee.

Captain W. T. Skinner's Company, 6th Battalion R.A. (now 12th Medium Battery R.A.)—at Colombo.

Captain J. W. Kettlewell's Company, 6th Battalion R.A. at Galle.

Infantry

H. M.'s 19th Foot (now 1st Battalion, The Green Howards)—at Trincomalee.

H. M.'s 73rd Foot (now 2nd Battalion, The Black Watch)—at Colombo.

1st and 2nd Ceylon Regiments—at Colombo.

3rd Ceylon Regiment—at Trincomalee.

4th Ceylon Regiment—at Galle.

The Ceylon Lascars—in detachments.

The Ceylon Gun Lascars—three divisions, one attached to each artillery company.

The 1st and 2nd Ceylon Regiments enlisted Malays, and the 3rd and 4th Regiments Caffres.

The interior of Ceylon is mountainous and at that time was covered with thick jungle. There were but three or four indifferent tracks leading to Kandy and much of the country beyond the British frontier was practically unexplored. The Kandyans, though of little fighting value, were adept at guerilla warfare and notorious for cunning and treachery. The climate of the interior was known to be unhealthy and the Kandyan provinces were reputed to be unable to provide supplies for the invading force. The problem of despatching an expedition into the interior was therefore a difficult one, since it involved the eventual subjugation of a territory of about seventeen thousand square miles. At the time, the news of the peace with France had not reached Ceylon and it was in consequence essential that adequate garrisons should be left to hold the three chief ports, Colombo, Trincomalee and Galle. On 21st November 1814 Sir Robert Brownrigg issued a long order giving minute details of the organization of the expeditionary force for operations against Kandy, but his instruc-

tions were amended in General Orders of 29th November, when news of the peace with France reached the island.

The British commander decided to adopt somewhat unusual tactics and to march on Kandy in eight divisions comprising a total of less than four thousand fighting men.

The troops were organized as follows:

1st Division.—Major Hook, 2nd Ceylon Regiment.

Captain Skinner's Company, 6th Battalion R.A.—(Detachment—one officer and twelve men, one 1-pdr. gun and one 4 2/5" howitzer).

Ceylon gun Lascars—4 N.C.O.s and 20 lascars.

73rd Regiment—Half company.

1st Ceylon Regiment—One company.

2nd Ceylon Regiment—One company.

2nd Division.—Lieut.-Colonel O'Connel, 73rd Regiment.

Captain Skinner's Company, 6th Battalion R.A.—(Detachment of one officer, 23 men, one 1-pdr. gun, and two 4 2/5" howitzers).

Ceylon Gun Lascars—4 N.C.O.s and 30 lascars.

73rd Regiment—Two companies.

1st Ceylon Regiment—One company.

2nd Ceylon Regiment—Three companies.

Ceylon Pioneers—One company.

Total: 751 *all ranks.*

3rd Division.—Major Kelly, 4th Ceylon Regiment.

Captain Kettlewell's Company, 6th Battalion R.A.—(One officer, 13 men, one 1-pdr. gun, and one 4 2/5" howitzer).

Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 20 lascars).

73rd Regiment—One company.

1st Ceylon Regiment—One company.

4th Ceylon Regiment—One company.

Ceylon Pioneers—Detachment of 75 men.

Medical Establishment—One surgeon and one dispenser.

Total: 402 *all ranks.*

4th Division.—Lieut.-Colonel Gaels, 73rd Regiment.

Captain Kettlewell's Company, 6th Battalion R.A.—(One officer, 19 men, one 1-pdr. gun and one 4 2/5" howitzer).

Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 30 lascars).

73rd Regiment—One company.

1st Ceylon Regiment—Two companies.

4th Ceylon Regiment—Two companies.

Ceylon Pioneers—Detachment of 106 men.
Medical Establishment—One surgeon and two dispensers.
Total: 642 *all ranks.*

5th Division.—Major McKay, 3rd Ceylon Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(One officer, 16 men, one 3-pdr. gun, one 4 2/5" howitzer and one cohorn).
Ceylon Gun Lascars—(One Indian officer, two N.C.O.s and 30 lascars).
19th Regiment—One-and-a-half companies.
3rd Ceylon Regiment—One-and-a-half companies.
Ceylon Pioneers—Detachment of 102 men.
Medical Establishment—One dispenser.
Total: 445 *all ranks.*

6th Division.—Lieut.-Colonel Raynsford, 19th Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(One officer, 15 men, one 3-pdr. gun, one 4 2/5" howitzer and one cohorn).
19th Regiment—One-and-a-half companies.
3rd Ceylon Regiment—One-and-a-half companies.
Ceylon Pioneers—Detachment of 103 men.
Total: 455 *all ranks.*

7th Division.—Captain Anderson, 19th Regiment.
Captain Cleaveland's Company, 4th Battalion R.A.—(Detachment with one 1-pdr. gun, and one cohorn).
Ceylon Gun Lascars—Detachment.
19th Regiment—Half company.
3rd Ceylon Regiment—One company.
Total: 205 *all ranks.*

8th Division.—Captain de Bussche.
1st Ceylon Regiment.—Detachment.

It was intended that the 2nd, 4th and 7th Divisions should act as reserve formations to the 1st, 3rd and 6th Divisions respectively. Major-General Jackson was placed in command of the 5th, 6th and 7th Divisions with Captain R. F. Cleaveland as his assistant adjutant-general. Sir Robert Brownrigg himself assumed command of the remaining divisions with Second Captain H. Bates, R.A., as his deputy adjutant-general. Colonels Brooke Young and Evatt were in command of the artillery and engineers respectively. There was an acute shortage of artillery officers; in Cleaveland's company not another officer was available for duty and an infantry officer was placed in command of the guns of the 6th Division

under "the general supervision of Captain R. F. Cleaveland." Colonel Kerr was appointed deputy commissary-general.

The British plan was for the 1st and 2nd Divisions to advance from Colombo *via* Ruwanwella and the Balani Pass, the 3rd Division from Galle *via* Nuwara Eliya, the 4th Division from Hambantota *via* Nuwara Eliya, the 5th and 6th Divisions from Trincomalee *via* Matale, the 7th Division from Batticaloa *via* Bintenne and the 8th Division from Negombo *via* Kornegalle. All divisions were directed on Kandy.

The most careful instructions were issued concerning the transport. Each one-pounder gun was allotted three bullocks, three-pounder guns and howitzers getting eight bullocks. Two hundred rounds a gun were to be carried by ten pioneers, and for each howitzer thirty-two rounds were to be carried in boxes by twenty pioneers while a further thirty-two were borne on limbers. It was clearly explained that although the Pioneer Lascars were primarily intended for carrying ammunition and tents under the Ordnance Department, they were to be available in camp and bivouac for road-making and other duties required by the staff. Private followers were restricted to twelve for a field officer and ten for a captain or subaltern, but these figures included six *dhoolie*-bearers per officer "without which no officer should take the field." Rations were found by Government for the whole force, but 6*d*. a day for their rations was recovered from officers who had also to refund the cost of rations supplied to their private servants. The soldier had the cost of his rations deducted from his pay. The daily scale of rations for European troops on active service was fixed at one pound of beef, one seer of rice or one pound of biscuit, two drams of arrack, one-fortieth of a seer of salt and one ounce of "curry stuff." The native troops received one seer of rice or two-and-a-quarter seers of paddy, one-fortieth of a seer of salt and one ounce of "curry stuff." Fifteen days' provisions were carried by each division in addition to three days' rice ration on the soldier. Each infantry-man also carried forty rounds of ammunition and a limited number of tents were carried by pioneers or on bullocks.

At the end of November the inhabitants of the Three Korales District rose in revolt against the King of Kandy, who dispatched a force to subdue the rising. Sir Robert Brownrigg therefore moved the 1st Division under Major Hook to the frontier east of Colombo in order to prevent raiding by the enemy. Despite warnings the Kandyans crossed into British territory and on 11th January 1815 Major Hook attacked their main body entrenched

at Ruwanwella. The British stormed the enemy breastworks, dispersed the defenders and captured a brass gun and four *gingals*. The inhabitants of the province of Saffragam immediately tendered their submission to the invaders and their territory was annexed by proclamation on 11th February.

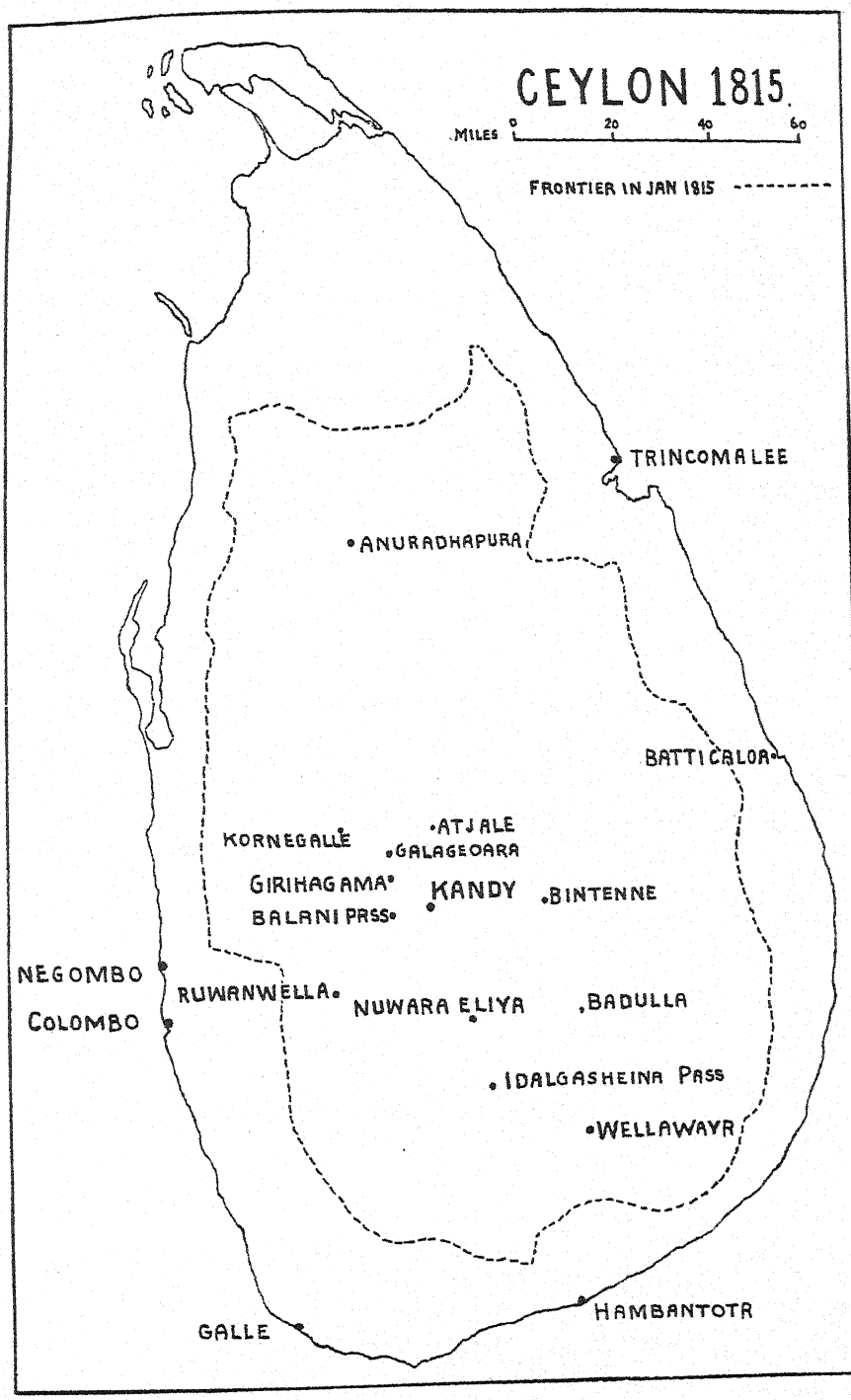
The advance on Kandy was then begun and by the 1st February the 1st Division was at the Balani Pass with the 2nd Division close in rear and the 8th Division near Kornegalle. Next day the 2nd Division captured the Balani Pass and the 1st Division occupied enemy forts at Galagedara and Girihagama without loss. The columns from the west coast then halted until 10th February by which time the 3rd Division had reached the Idalgasheina Pass, but on the following day Major Hook advanced to the Mahawelia Ganga River where he found the breastworks defending the ferry crossing abandoned. Three days later Sir Robert Brownrigg entered the enemy capital and on 19th February the King of Kandy was captured by his own subjects at Meydamaha Nuwara and handed over to a patrol of the 1st Ceylon Regiment under Lieutenant Mylius.

By 15th February the 1st, 2nd, 3rd, 4th, 5th and 8th Divisions had reached Kandy, but the 6th and 7th had been delayed by lack of transport and had not left Trincomalee and Batticaloa respectively. These divisions were ordered to stand fast. On 21st February the Kingdom of Kandy was formally annexed and the war was declared to be over.

The garrison of Kandy under Major McKay, 3rd Ceylon Regiment, was then detailed as follows (General Orders of 26th February 1815):

Captain W. T. Skinner's Company, 6th Battalion R.A.—Two officers, 22 men with two 1-pdr. guns, two 4 2/5″ howitzers and three cohorns.
19th Regiment—Half company.
73rd Regiment—One company.
1st Ceylon Regiment—One company.
3rd Ceylon Regiment—Two companies.
Ceylon Gun Lascars—One Indian officer, two N.C.O.s and 40 gun lascars.

In addition small garrisons were established at Amenoopoora, Atjale Pass and Badulla. The remainder of the troops were sent to their permanent stations and the 3rd and 4th Ceylon Regiments and the Ceylon Pioneer Lascars were shortly afterwards disbanded. The Governor and Commander-in-Chief return-


CEYLON 1815.
MILES 0 20 40 60
FRONTIER IN JAN 1815
TRINCOMALEE
ANURADHAPURA
BATTICALOA
KORNEGALLE
ATJALE
GALAGEDARA
GIRIHAGAMA
KANDY
BINTENNE
BALANI PASS
NEGOMBO
RUWANWELLA
COLOMBO
NUWARA ELIYA
BADULLA
IDALGASHEINA PASS
WELLAWAYA
HAMBANTOTA
GALLE

ed to Colombo on 24th March and was welcomed with an official reception and a general parade of all troops of the garrison.

A curious sequel to the campaign is revealed by the proceedings of the Kandyan Prize Committee which was appointed in General Orders of 27th February 1815. A quantity of loot had been captured during the operations including, in addition to arms, a certain amount of ivory, jewellery and copper coins. Sir Robert Brownrigg was apparently uncertain whether all or any part of this booty captured from the enemy should be distributed to the troops in the form of prize money and asked advice from the Madras Government on the subject. The reply, based on the precedent of the Seringapatam Prize Fund, seemed to justify such a distribution, so Sir Robert provisionally sanctioned the measure, subject to the approval of the Home Government. The answer from London was published in General Orders of 26th August 1816 and conveyed in pompous but unmistakable language, "His Royal Highness the Prince Regent's marked disapprobation of the Prize Committee's proceedings." All captured property of His Majesty's enemies was to be considered as vested in the Crown alone and His Royal Highness disapproved very strongly, and not unnaturally, of an audacious claim which was made by the Prize Committee demanding compensation for the delay in distributing the value of the booty. This seems to have settled the matter and the Governor subsequently failed to persuade the Colonial Office to sanction the distribution of even a small proportion of the Prize Fund among the troops.

The campaign which had lasted less than six weeks had resulted in the annexation of a huge territory, and the final consolidation of British interests in Ceylon, and this without the loss of a single soldier. But the year 1815 saw such vitally important events in Europe that this minor expedition in Ceylon apparently passed practically unnoticed.

MECHANISATION OR MOTORISATION

The application of mobility to our Frontier problems

By "Vibgyor"

"His" (a commander's) "duty is to apply to his task the common-sense rules which have guided all fighting since the earliest days. The most important of these is always to endeavour to surprise and distract the enemy. Again, speed in action must be cultivated . . . the power to move quickly often gives to a body of troops, as to a boxer, the advantage of surprise."

"The more civilised life becomes and the more complex the methods of war, the greater is the tendency of the average man to find difficulty in applying to battle the ordinary dictates of common-sense."

(*Field Service Regulations*)

The object of this article is to discuss the value and employment of motor vehicles as a means of establishing control over tribal areas. The dictionary is somewhat vague in its interpretation of the word mechanisation; the word motorisation is not listed at all, probably due to the influence of Mr. A. P. Herbert. However, for the purposes of this article, the reader is asked to accept the following interpretations:

Mechanisation means the process of providing troops with mechanical vehicles for fighting purposes.

Motorisation is the process of embussing troops or commodities.

Mechanisation, in fact, implies offensive action, whereas motorisation implies an essentially passive role.

Before considering the applicability of the motor vehicle to our problem on the North-West Frontier it might be as well to discuss, briefly, what that problem is.

The discussion will purposely be limited to Waziristan with its two main territories, Mahsud and Wazir.

If we can find the solution to our problems in Waziristan, the same solution should prove applicable to other territories.

Our main problem in Waziristan is obviously to bring about a lasting settlement—not only peace in our time, but for evermore. Having decided what our problem is, the next and most important step is to decide upon a sound policy for solving it. It is not for

the writer to attempt an authoritative statement as to what our policy should be; but it cannot be classed as presumptuous to hazard a guess that it might be possible to find a solution by tackling the problem in the same way as we tackle problems of civil disturbance in British India. Assuming, then, that the two problems are analogous, a brief survey of the methods used to quell or prevent civil disturbances should prove profitable.

The procedure with civil disturbances may be outlined as follows:

Firstly, the deputy commissioner, the superintendent of police and the military commander meet and discuss the problems which confront them. The civil authority knows what he wants, his experience and his sources of information tell him what to expect in the shape of trouble. The policeman knows what civil resources will be available to deal with the trouble. Thus, with all cards on the table, the soldier can make a very good appreciation of the situation which is liable to confront him. He then, after full discussion with the deputy commissioner, makes his suggestions for the application of military force, if such action should become necessary.

Assuming that disturbances threaten and eventually break out, the procedure normally is as follows:

There is a preliminary stage, during which the civil authority, assisted by civil forces, attempts to prevent trouble. During this stage, the military commander is kept fully informed of the trend of events. He may be called upon to "show the flag" with a view both to discouraging agitators and heartening the waverers and loyal or peaceful elements.

The next stage arrives when active intervention by military force becomes essential to save lives and property and to restore law and order. This action does not mean that troops move in and use their arms regardless of human life. The implication is that, wherever the situation gets out of hand, the troops *are in a position* to apply force if civil authority considers such action necessary.

The most noticeable points about the measures taken to deal with civil strife are a heart-to-heart preliminary talk and the making of a plan by the senior officials concerned, and the application of adequate force at the right time and place, whether during the preventive or active stages, the same being dependent on the swift movement of police or troops.

It is suggested that similar principles should be adopted in Frontier tribal territory. It cannot be questioned that civil and

military officials meet and discuss tribal affairs, but is there a plan in mind or on paper for dealing with each section or sub-section?

Agitators seldom appear simultaneously in every tribal section. Although there may be irreconcilable elements in each section, they have never yet succeeded in achieving simultaneous and concerted action; their custom is invariably to wait one upon the other for a lead.

Hence, if a plan exists for dealing with each section or sub-section, whether in its summer or winter grazing grounds, it should be possible to nip any trouble in the bud, by dealing with the one or two agitators who show a yearning to become the leaders in a tribal uprising. For instance, if, in 1936, it had been possible to capture the Faqir of Ipi, the Din Faqir and, perhaps, Sher Ali, as soon as they showed signs of unrest, it is doubtful whether other small fry such as Gagu would have had either the courage or the following to become nuisances and disturbers of the peace during 1937.

As the application of force at the correct time and place demands speed, it follows that we should use such means as we have for achieving speed in action. In fact, we must apply to battle the ordinary dictates of common-sense in order to surprise and distract the enemy.

The means at our disposal are motor vehicles, aircraft and wireless telegraphy, and it is open to question whether we utilise these modern resources according to the common-sense rules which have guided all fighting since the earliest days.

It is admitted that the terrain of the Frontier is not ideal for the employment of mechanical vehicles; but such conditions should not result in the assumption that motor vehicles can be used only for purposes of transportation. To anyone who agrees with Field Service Regulations, it must be evident that those who regard the terrain of the Frontier as an insuperable obstacle are definitely average men who find difficulty in applying the benefits of modern inventions in accordance with the dictates of common-sense.

It is proposed to consider, briefly, the three principal means at our disposal—aircraft, wireless and motors.

Aircraft.—It is an accepted principle that, to achieve effective co-operation between air and ground troops, the commanders of the two Services must maintain the closest personal liaison. Is this principle obeyed in Waziristan?

The only permanent air force in Waziristan under peace conditions is one flight, stationed at Miranshah. The nearest

reinforcements live either at Kohat, Peshawar or Risalpur, distant between ninety and one hundred and fifty miles from Miranshah. The squadron-leader lives, naturally, with his unit and not with his detachment. Hence, whenever any disturbances occur—and they are apt to occur at very short notice on the Frontier—the divisional commander's principal air adviser is at least two or three hours' journey distant from him; and, when he eventually meets the divisional commander, further valuable time has to be spent in putting him into the picture before any concrete suggestions for the disposal of air resources can be formulated. Further delay in the application of air resources is occasioned by the fact that part, if not all of a squadron's ground staff has to move by road from its permanent station to Waziristan.

It is suggested, therefore, that if we are to achieve timely application of our air resources, there should be not less than one army co-operation squadron permanently located in Waziristan.

Wireless.—Here, again, the terrain is not ideal, because mountains are apt to "blanket" wireless waves. This limitation should be an added reason for increasing the number of portable wireless telegraphy and radio telephony sets. Of late years, enormous strides have been made in the development of these portable sets, hence their use should be very much more general than it is at present.

To-day, battalions and posts on the line of communication still depend on the telegraph or telephone, in spite of the fact that tribesmen frequently cut land lines and remove miles of the wire. Is it not the very negation of common-sense to continue to rely on land lines under such conditions?

For instance, how much more effective it would be if a commander could talk to his intelligence officers, rather than be compelled to accept the bare statement of a laconic telegram saying that a party of twenty men had set out "to raid in the Bannu District." As that district covers an area about the size of Wales, it will be realised that a little elucidation by means of radio would be of considerable assistance to the commander concerned.

Motor Vehicles.—This heading covers several main factors, each of which must receive brief consideration, which is all that the scope of this article will allow. At present there are available three main types of vehicle—tanks, armoured cars and lorries.

Tanks have their limitations, which are particularly evident in hilly country; but, in spite of such limitations, they have proved invaluable in frontier operations and are an obvious means of securing speed and superiority over the enemy. A "Modification

for India" to Field Service Regulations says, "On the Frontier . . . tanks are a valuable adjunct in quickening up Frontier operations." (Sec. 2, para. 3). Here, then, is a modern weapon which can be made to play a very valuable part in Frontier war fare, and in peace-time efforts to assert control over tribesmen.

Armoured cars have even more limitations than tanks in hilly country. They are more or less confined to roads which are few and far between, nevertheless their use as armoured machine-gun carriers must not be overlooked. The use of this weapon for road protection in order to decrease requirements in infantry has been well proved.

Lorries have been used, in their present form, as a means of conveyance for escorts and for mobile columns. The disaster in the Shahur Tangi, in 1937, is adequate proof that the lorry of to-day is of no practical use as a means of achieving "mechanisation"—its only sound use lies in its ability to achieve "motorisation." Hence, it is evident that if we are to apply the ordinary dictates of common-sense to this problem, we *must* have two totally different types of lorry; one being the commodity-carrier with protection for the driver and for nothing else, the other being a troop carrier with protection for both driver and passengers.

In Waziristan, during 1937, attempts were made to make lorries more formidable by affixing contrivances which would hold Vickers-Berthier or machine-guns, so that they could be operated by gun teams while the lorries were on the move. The possibility of protecting the unfortunate lorry driver, thereby enabling the lorry to escape from an ambush by using its speed, did not appear to enter anybody's calculations!

Assuming that lorries are provided with this gadget, the first question which enters a passenger's head is: "What is the use of this to one, when the driver has been killed while travelling at fifteen miles per hour and the lorry goes over a cliff?" Assuming that the lorry does not go over the cliff and that the driver is neither killed nor wounded, could any gun team survive long enough effectively to operate its guns in open lorries under conditions such as those which obtained in the Shahur Tangi? If such conditions are not envisaged, then why have the gadget?

The obvious solution is to have a special type of troop carrier. Armoured protection need not be of the heavy type, but should be sufficient to deflect and stop the soft-nosed bullet which is generally used by the tribesman. Further, it is suggested that

the troop carrier should have a solid roof, capable of carrying the bedding and first-line gear of the passengers. A small protected conning-tower through the roof would enable touch to be maintained throughout a moving column. Finally, the sides of the armoured lorry should be capable of quick-release action, similar to the dummy sides used in "Q"-boats during the anti-submarine campaign of the Great War. This arrangement would enable troops to debus rapidly on either side.

Having decided on the most suitable means of achieving our object, it remains to consider the method of applying those means.

Roads should be constructed so as to encircle tribal sections and sub-sections. They should enable easy penetration of any area by troops debussed at any given point on the road encircling the area in question.

Take, for instance, the area bounded by Miranshah—Boya—Datta Khel—Damdil. A road exists to-day which encircles this area. Troops debussed at any point on this road should be able to penetrate any part of the area enclosed during the two-day limit imposed by hard-scale rations. If we apply the same principle to future road building, we shall eventually have a network of roads which will enable troops to reach any centre of unrest.

In each area there should be one or more mobile columns, depending on the size of the area and on the length of its communications.

During 1937, in Waziristan, there were certain battalions earmarked for mobile column duties. Their role consisted of being embussed in the food-carrier type of lorry, and then being rushed to the scene of a raid or to a route suspected of being used by a gang. After completing or not completing their task, they returned to the place whence they had come.

It is suggested that this is not a correct application either of mobility or of mechanisation. Any tribesman of average sense knew exactly what to expect of these mobile columns. He knew their route and the approximate time they would take to reach a given point, and so he could easily estimate how many hours he had in which to effect his escape. In fact, secrecy was one of the last things which the "mobile" troops ever achieved—it is even doubtful whether the tribesman really bothered his head much about them, he had no cause to! This was *not* the fault of the troops, but the fault of the system.

It is evident that if a mobile column is to achieve success, its moves must be very secret and its descents on the enemy sudden and unexpected. The only way in which such success can possibly be achieved is for mobile columns to have no permanent base. They must be ever changing their routes, bases and programmes. In short, the age-old principle of never doing the same thing in the same way more than once is as applicable to modern vehicles as it ever was to the infantry soldier on the frontier.

If mobile columns are to be capable of cutting off or penetrating into a tribal area, it is evident that their composition must allow of protection for vehicles abandoned whilst troops operate across country. Further, mules must be transported with the column so that the cross-country efficiency of the troops may not suffer.

Two other requirements and the mobile column should be a really valuable factor on the Frontier: In the first place means of maintaining communication between the various parts of the column while on the move are essential. Only through first-class means of communication can the column commander be kept in touch with the latest developments in the situation.

In the second, co-operating aircraft are essential. To have a mobile column without an attendant aircraft is as sensible as sending a blind man to search for a needle in a haystack. During movement along roads or across country, the column is, comparatively speaking, blind. Its success depends on the old adage, "By guess or by God." The absolute necessity for attendant aircraft with each mobile column or at least in each area is self-evident. Field Service Regulations state, "Whatever may be the form of warfare in which the army is employed, the closest possible co-operation between the army and the air force, between ground and air action, is always essential."

It has been shown that one method of establishing control on the Frontier is to adopt the same procedure as is normally employed in settled districts for dealing with civil disturbances. That is to say, close liaison between civil and military authorities, clear-cut plans to deal with all possible eventualities and the early application of the necessary remedy—action.

Further it has been shown that if any action is to achieve decisive results it can only be brought about by the correct use of modern means, applied in accordance with the dictates of war and common-sense. The troops themselves, civil or military, are

capable enough, but they do need adequate and modern means, which are—

(*a*) roads designed to enable penetration and encirclement of tribal areas;

(*b*) mobile columns equipped with the correct type of vehicle, and utilised according to the correct principles of war;

(*c*) the latest and best means of inter-communication, *i.e.*, the wireless set to supersede the land line, and

(*d*) a larger number of aircraft to be stationed permanently in tribal areas.

All action should aim at a speedy isolation of areas where trouble shows signs of brewing; there should be no waiting for trouble to become a reality. Such isolation should be directed towards the removal of any agitators. Any normal person will agree that the speedy removal of a gangrenous finger or of a perforated appendix is vitally important; the same principle should apply to agitators on the Frontier.

"If 't were done at all, 't were best done quickly."

THE MARCONI TYPE H9A

(*Light-weight Radio Telephone Set*)

By Major D. H. J. Williams

In the April 1938 issue of the *United Service Institution of India Journal*, in an article, "The Dream Sector L. of C." "Auspex," remarks as follows: "Until we get man-carried radio telephone sets—and the sooner that comes the better—a detachment will always be out of control for some period or other of an operation."

It may not be generally known that a very useful little man-pack radio telephone set exists, and has been in service for some eight months now with the South Waziristan Scouts. This is the Marconi light-weight telephone set, type H9A. This instrument is naturally subject to certain limitations in its operation, but when two years ago we decided to explore the possibilities of man-pack radio telephony equipment for use with our *gashts*, we realised that no such thing as the ideal and perfect instrument existed. We began by comparing the performance of existing instruments with our existing means of visual communication, helio, lamp and flag. At that time there was only one instrument on the market, an American one, the weight of which was not prohibitive for our purpose. It weighed twenty-seven pounds, but in other respects was not fitted out for the work we required of it. However, carrying harness, aerials, etc., were improvised, and tests over some six months showed the usefulness of this means of communication.

In the course of a year Marconi's Wireless Telegraph Company produced a reliable and economical set, properly fitted out on lines which we considered suitable from our previous experience. Considered primarily *vis-a-vis* existing man-carried means of visual communication, the Marconi H9A has the following advantages:

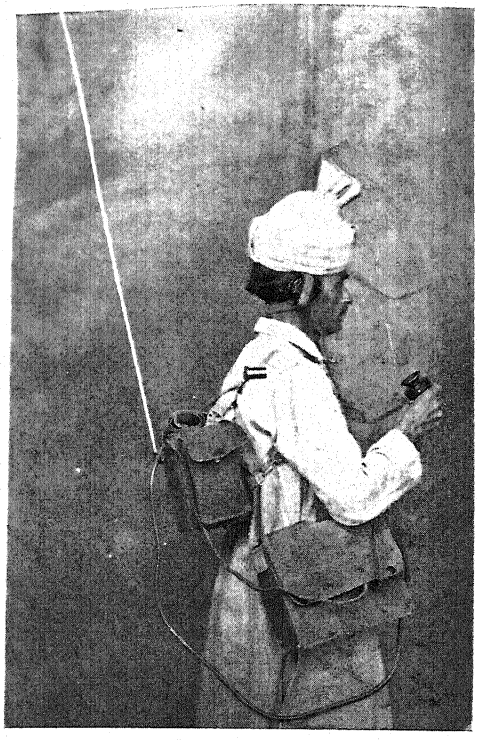
(*a*) It weighs less than a lamp and helio combined.

(*b*) It is invisible in operation—and does not therefore immediately disclose the position of *gashts* and piquets to the whole country-side for miles around.

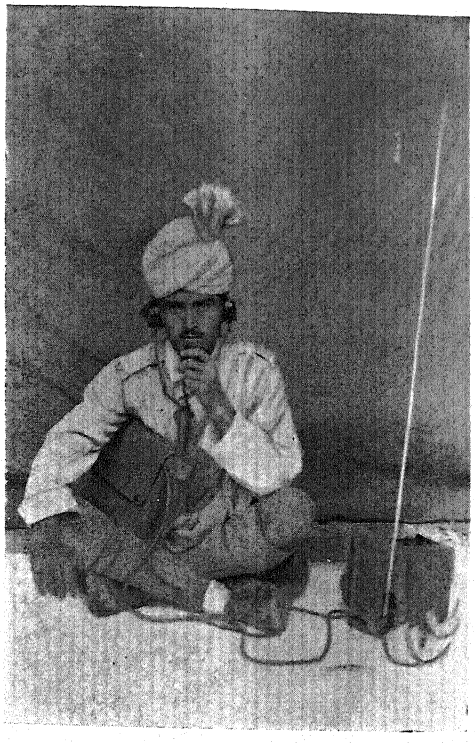
(*c*) It can function in all weather conditions including cloud and rain which obstruct visual communication.

(*d*) Communication can be maintained while on the move, continuously if so desired.

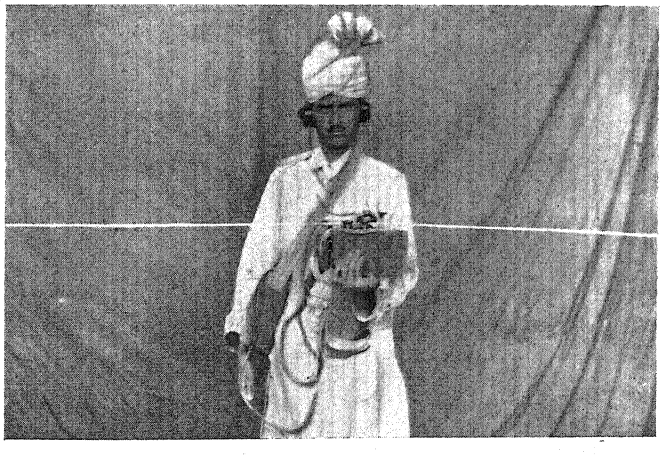
MARCONI TYPE H9A EQUIPMENT



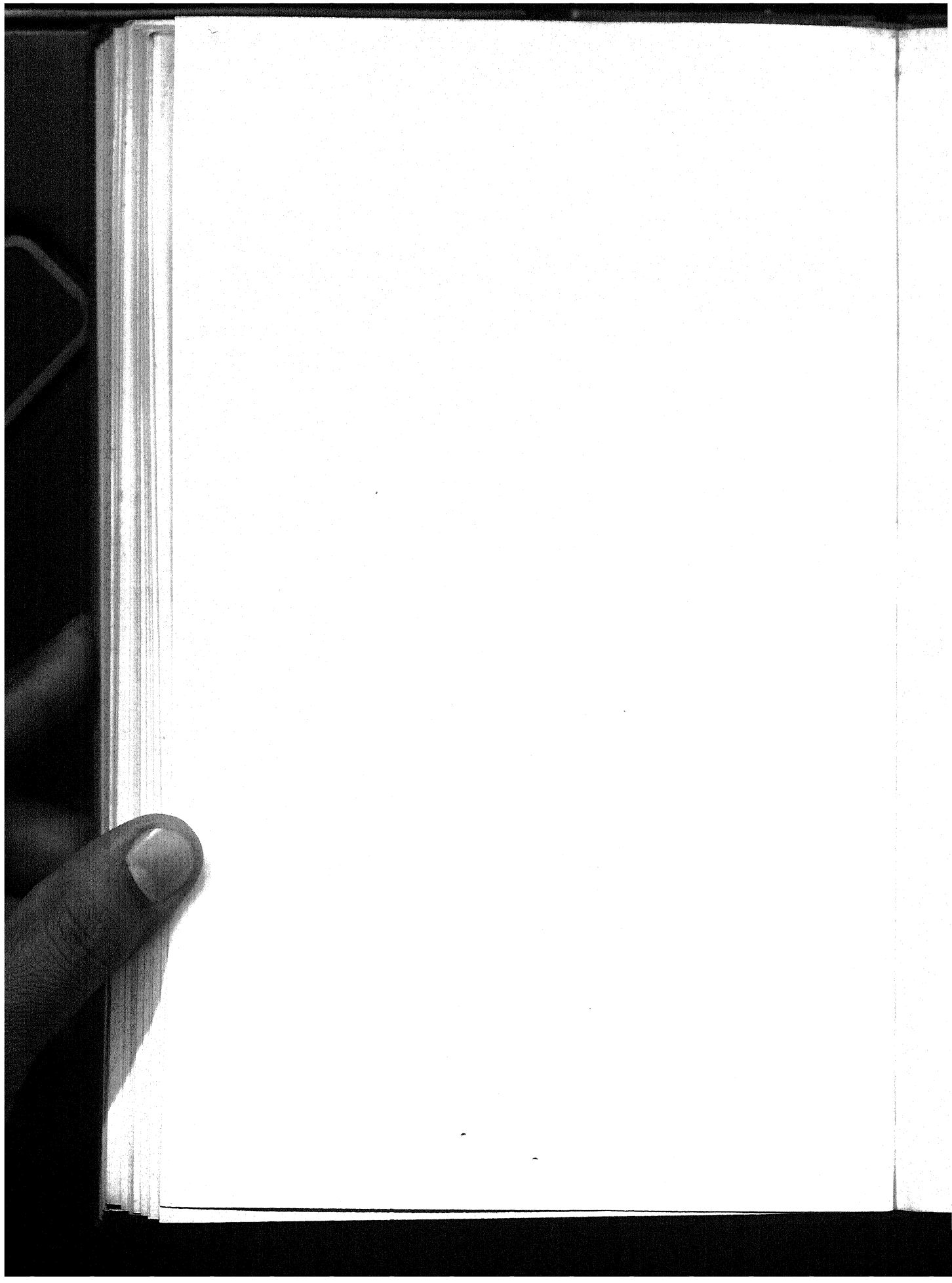
The set in use with ¼-wave aerial on the move.



The instrument box placed on the ground using ¼-wave aerial.



The set in use with the dipole aerial. The light-weight instrument can be held quite conveniently in this position. It can be placed on rocks, walls, etc.



(*e*) The full picture of a local situation can be given in a few seconds in a manner quite impossible in visual communication.

(*f*) While the apparatus is definitely limited by the height of some hills, it will function satisfactorily over obstructions several hundred feet high. There is no question of communicating stations having to be within sight of each other.

I do not propose to give any detailed technical description of the H9A, all of which can be found in the Marconi handbook "Working Instructions for the Light-weight Telephone Set Type H9A." The general arrangement for carrying and operation can be seen from the accompanying photographs, and I add some brief notes on the equipment and our experience of its working.

The weight of the set is eighteen pounds complete. The instrument box takes up seven-and-a-half pounds of this, the rest is the batteries in their haversack. Equipment of this weight is easily carried by one man in mountainous country. The instrument box is all metal and enclosed in a strong waterproof canvas case, to which the shoulder harness is attached. A pocket on the side of this case contains the headphones and microphone when the set is not in use. The 'phones are kept on the head by the simplest and most comfortable design of canvas strap I have yet seen for such an instrument. Either helmet or *pagri* can be worn without the least difficulty.

The wave range is 4.75 to 5.25 metres (6.3 to 5.4 megocycles). The great advantage which this very low wave gives is complete freedom from atmospheric interference in all conditions of weather and climate. Speech is therefore clear at all times.

The set is a combined transmitter and receiver, two valves only being employed. Both these valves are the same type, and in consequence only one type of valve need be stocked in spare parts. Actually in eight months' working of eight of these sets, including hard service on a number of operations and some rough treatment of the apparatus, no valve replacements have been required.

There are only two controls. One, a knob for tuning, which does not require further adjustment once communicating stations have tuned in to a common wavelength, and the other a robust switch for Send—Off—Receive. Once tuned in, the operator only has to switch over from send to receive, or off, as necessary.

The range of the sets varies with the country over which they are worked and is dependent on intervening obstructions such as hills. In hilly country with no intervening features obstructing

the line of sight between communicating sets, a comfortable working range of twenty miles can be achieved without any difficulty. I do not say this is the limit; I have not tried them further and it is quite possible they may do more. With intervening obstructions the range comes down. I cannot say what the exact final limitation of working over hills may be, as the sets were put straight into service as soon as they were received, and no opportunity has since occurred to carry out a careful series of limitation tests in this respect. I should say that hills rising about seven hundred feet above a line of sight between two communicating sets in this type of country come somewhere near the limit of working. But many factors come into the question, and I have one report from a Post of a set working over a ridge nearer a thousand feet in height. It would be wrong to make any more definite statement at present. The vegetation covering the country also affects the question of range; in well wooded, close country it is reduced even though hills may not intervene.

To those who know Waziristan, or who have a one-inch map of the area, the following recorded examples may give some idea of what can be done:

Communicating sets' positions.	*Distance apart direct.*	*Intervening obstructions.*	*Signals.*
		Feet.	
Jandola—Chagmalai ...	4 miles ...	220	Strong.
Razmak—Ladha (878100) ...	9 miles ...	300	Half-strength.
Sarwakei—Pt. 864679 ...	6 miles ...	450—500	Weak.
Jandola—Sarkai ridge (093110) ...	18 miles ...	600	Weak but clear.
"Tanai—Kanzwarai Narai (7365) (6240)	18 miles ...	250	Strong.

One could of course give many similar examples.

The aerials for this set are light alloy sections. Four sections are supplied, which will form two different types of aerial. The normal type when on the move is the quarter-wave aerial shown in the first photo. This is composed of two sections, and when in use the remaining two sections are carried above the instrument case on the operator's back. They can be seen in the photo. The other type of aerial is the "dipole" shown in the third photo, and formed by plugging in the remaining aerial sections at an angle of 180 degrees to the original quarter-wave aerial. Over visual ranges up to fourteen miles or so the quarter-wave aerial gives adequate results. Over longer visual ranges the dipole will give stronger signals, and when obstructions intervene to any great extent, the

improvement in signals when this aerial is used become very marked.

The dipole aerial is highly directive. In general the signals are strongest when both aerials of communicating sets are kept horizontal and parallel to each other. This rule is, however, subject to many variations. In testing these sets out in Devonshire early last year, I found one extreme case where reception could only be obtained when one station's aerial was kept horizontal and the other vertical. There were also cases of smaller variation from this rule when working in heavily wooded country. Large conducting masses close to sets can again affect the matter.

The battery haversack contains the following:

108-volt dry battery for high-tension supply.

3-volt grid bias battery.

2-volt unspillable accumulator for low-tension supply.

The low-tension accumulator is sufficient to give twenty-four hours' continuous working if required. In practice, as the sets are never required to work continuously to that extent, the accumulator gives considerably more hours' working. No instances of sets giving out through run down accumulators have so far occurred, and as a normal practice we change over accumulators in use and recharge them once a month. The sets have been used on operations lasting about eight days consecutively, apart from other routine work during the month. It seems probable that high-tension batteries will last us about five months in service.

Few breakages have so far been experienced with this equipment, and those experienced could hardly be described as due to fair wear and tear. In fact only two have occurred among the eight sets in eight months. On one occasion an instrument was dropped from about seven feet onto a rocky hill-side. One ebonite socket to take the aerial plug was broken, but no other damage occurred. The valves were quite unaffected. On the second occasion, an operator coming under fire near the top of a hill during an advance, went to ground, and then rolled over on his back. The ebonite plug of the aerial was damaged. The other aerial sections (carried for dipole working, but also forming a complete spare quarter-wave aerial) were at once inserted, and communication maintained without a break throughout the ensuing action. When it is considered that these sets have now been carried hundreds of miles on *gashts* and rushed down hills at speed by retiring platoons or picquets, these breakages are really negligible.

On one occasion during operations in the Ahmedzai salient near Bannu in September, a set was completely immersed in the

Kurram river. The operator lost his footing in a deep ford of the river which was in partial spate. The treatment reduced the efficiency of the high-tension battery considerably; but did no harm to the instrument. Dried off at the end of the march, it continued to function perfectly.

Nothing in connection with these sets has surprised me so much as their extreme reliability in all conditions of our work. I should have been quite prepared in the course of eight months for occasional small minor internal faults, breakage of valves and so on. However, except to replace the broken parts mentioned above, it has not been necessary to tighten or remove a single screw or nut in the instruments themselves.

I have been asked at times why telephony only has been provided in these sets, and not telegraphy as well. Also why the whole outfit is not put in one case. The answer to the first question is not difficult. The type of set was chosen for absolute simplicity and the avoidance of any technical requirements for its working. Almost any intelligent man can work these sets after a little practice. Telegraphy alone means wireless or signal experts to work the instrument. If provided in addition to telephony it means added weight and more complicated design—not to mention cost.

These equipments, complete, cost only £18-18 each, a very small sum for what they can accomplish.

The second question is not so easy, and is open to various arguments. The set in two loads was chosen after experience with the earlier American model mentioned above, which was all contained in a single metal box. We found for instance that switches were continually being left on after use, or were knocked on accidentally and not noticed. The complete separation of batteries in the H9A makes it a matter of indifference whether switches are on or off after use. As soon as the battery lead is disconnected and packed in its place on the instrument case, no wastage of current can occur and the wearer prefers the division of the load from the carrying point of view; at least our operators do.

Tactically we found that a very small instrument box, joined to its current supply by a fairly long lead, had certain advantages. When not on the move it could be placed on a rock or a picquet wall while the operator remained under cover, and its small size would not attract attention. The aerial gives better reception out in the open than tucked away behind a wall.

If sets fail to work at any time it is normally due to a loose connection or some similar fault in the leads inter-connecting

batteries. Obviously this part of the equipment should be readily accessible at all times, and preferably without opening up the instrument box. The division of the equipment falls quite naturally into two parts: First the instrument itself which does not require inspection or check for months on end, and second the supplies for the instrument, *i.e.*, the batteries, which with their inter-connections require frequent inspection and periodical renewal.

The aim in this equipment was to keep these two distinct parts separate. The distribution in two loads was not made in any haphazard manner.

From our point of view, if prolonged operations should ever make the carriage of spare batteries desirable, they could be carried most conveniently, ready and fitted up, in a complete spare battery haversack. This is simple and cheap to arrange.

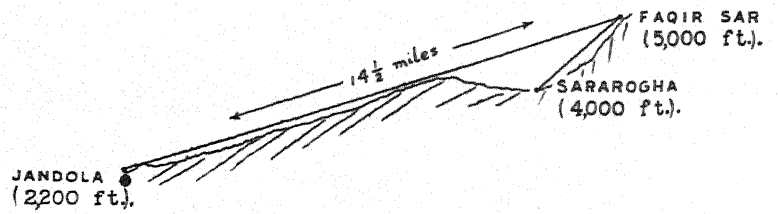
I have not touched upon the performance of these sets in flat country, primarily because our interests lie in their performance in the hills. Marconi's handbook remarks, "Over average flat country the normal range is one mile." This is definitely a conservative estimate. Testing them out over chosen flat parts of Devonshire, I got pretty consistent results at ranges of two-and-a-half miles. Over different types of flat country the range will vary. Whatever the type of flat country there should seldom be difficulty in getting communication between two stations which are in visual communication with each other. Over flat parts of a country like Devon, well wooded, high field banks, grass and ploughed land, the range between stations which are not in visual communication should certainly not be less than two miles, and probably more. On the Derajat plains round Tank the day-light range is between two and three miles.

I have not differentiated between the day-light and night range of these sets. With instruments working on longer wavelengths there is normally a good deal of difference. Atmospheric interference by day, particularly in the hot weather, is usually considerable. Ranges in consequence are much reduced.

With these very short-wave instruments, which are not noticeably affected by this atmospheric interference, the matter is not so important. We have used them at times by night on operations and have not found them to work any worse than by day. I cannot say that we have tested them particularly to see if better results could be obtained.

There is an interesting point in connection with the operation of these sets, which Marconi would probably term "re-radiated

signals." Roughly, if two stations are prevented by intervening features from communication with each other, and a third set is introduced which can communicate with both, then signals can pass in certain circumstances between the first two stations. Perhaps I can explain this better by a diagram of one actual case:



In this instance a station at Jandola tried to communicate with Sararogha, but was unable to do so owing to the height of the intervening hills. A third station was opened up on Faqir Sar further away from Jandola but higher up. As soon as this station opened up, signals to it from Jandola could be heard at full strength on the set in Sararogha. In this case, there was no question of the speech from Jandola being re-transmitted by the Faqir Sar operator to Sararogha. The conversation as it took place between Jandola and Faqir Sar, came through quite automatically to the listening station in Sararogha. We have not so far experienced this elsewhere and evidently some very special condition is required, possibly something to do with the highly directive properties of the dipole aerial.

The present situation in Waziristan is not entirely favourable for testing out points of this description. The equipment has proved too useful for ordinary communication purposes in our daily work to be diverted at present for proper tests, which must be carefully regulated. In time, as opportunity permits, we shall be able to record the final limitations of the equipment under all conditions of working.

There is one condition of weather in which the aerials of the H9A do not function properly. That is in a very heavy gusty wind such as a fierce dust storm often provides. Where such conditions are frequently encountered, some modifications of aerial would probably be required.

The H9A, one can say now, is an extremely robust and reliable little instrument. It goes a long way further towards meeting our communication requirements than anything we have previously possessed, though it does not fulfil the absolute ideal of communication from anywhere.

Finally I must refer to two points mentioned above and amplify them a little. First as to range. This equipment seems to achieve its shortest maximum ranges in really flat country. In such country raising the aerials by only a few feet can make quite a lot of difference. Secondly, I have mentioned the life of batteries several times in terms of months. This refers to our own conditions of work; the real life of a battery in all circumstances can only be measured by the number of hours' work it gives. My figures are merely a guide.

ROMAN HINDUSTANI

[*A Plea for its Extension to the Obligatory Examinations*]

By Major G. E. Wheeler

"Roman Urdu" is the name at present given to a system of transliteration into the Latin script of the Arabic and Nagri scripts used in Urdu and Hindi literature and newspapers. It is used in the official translations of military manuals for the use of Indian ranks, in the Army Certificates of Education and in the writing of messages and reports in the field by Indian ranks. In the obligatory and voluntary examinations in Urdu for officers of the Indian Army it is not used and outside the Indian Army it is not used officially.

The object of this brief article is to discuss the advisability or otherwise of substituting the Roman for the Arabic and Nagri alphabets in the obligatory examinations for Indian Army officers. It is not, however, proposed to discuss the merits or otherwise of the Nagri alphabet which represents, as a matter of fact, the most perfect system of phonetics in existence. The majority of officers are under present regulations, obliged to take the examinations in the Arabic character and the reasons against a universal application of Nagri to the Indian Army are too obvious to render any explanation necessary.

Before proceeding to examine the arguments for and against the use of the Roman character in the obligatory examinations it will be convenient to make a brief review of the progress of Latinisation as applied to other languages. The writer, however, would like to emphasise that he is not here considering the highly controversial subject of the universal Latinisation of *Urdu* but only the universal application of the Roman character to the *Hindustani* used by all ranks of the Indian Army.

For many years it has been generally recognised that the Arabic alphabet is quite unsuitable for the writing of any language except Arabic. It was imposed on the Seljuk Turks and the Persians as the direct, and on Northern India as the indirect, outcome of the Moslem conquests of the seventh and eighth

centuries. It has always had a considerable religious significance, a fact which has seriously militated against its replacement. The Arabic character is composed of twenty-eight letters. Persian and Turkish required the addition of four other letters. In Urdu, the Persian, Turkish and Hindi words used necessitate the inclusion of these four letters together with three others to express the hard *d*, *t* and *r* sounds in words of Hindi, Sanskrit or European origin. Arabic has four *z* sounds, two *t* and three *s* sounds. In the pronunciation of Persian, Turkish and Urdu there are one *z*, one soft *t* and one *s* sound, the hard *t* of Urdu being expressed by a separate symbol. The Arabic alphabet then, as amplified for Urdu, consists of thirty-five letters of which seven are not of Arabic origin and six are phonetically redundant.

The first assay in Latinisation was made by the U.S.S.R. who, in about 1922, ordained that the Azerbaijani Tartar language should thenceforward be written in a Latin alphabet specially designed for the purpose. This innovation was not confronted with any serious difficulty. Very few books and very little printed matter of any kind existed, religious opposition was faint and the change was generally recognised to be beneficial especially during the campaign against illiteracy. The next country to take to Latinisation was Turkey. Here the change involved grave difficulties. Education, both religious and secular, had, for years, been based on the Arabic character. Though native Turkish literature was small, there existed a vast mass of printed matter, including, of course, all Government records, all written in the Arabic script. Islam still exercised a considerable influence all over the country. Nevertheless, in 1928, a phonetic Latin alphabet of twenty-eight letters was introduced by law. The result has been astonishing. From being an unwieldy language loaded with Arabic words and phrases Turkish has, in a few years, gone a long way towards recapturing the succinct and pithy simplicity of the language of the Orkhon. This simplification is doing much to remove illiteracy and naturally makes Turkish, which was previously regarded as a difficult, almost an incomprehensible language, much more accessible to foreigners. Foreigners, including the present writer, who originally learned Turkish in the Arabic character, are amazed at the ease with which they can now read the newspapers and other literature which before seemed so complicated.

It seems not improbable that Latinisation will eventually be introduced into Persia. The only reason for delay is said to be the very reasonable wish to complete the educational reforms at present in progress before proceeding to such a radical cultural change. An interesting book called "*Rah-i-pishraft*" by M. Fatih was published in Teheran last year. In this book the writer competently deals with the objections to the introduction of a Latin alphabet. He divides the objectors into five groups:

(*a*) Those who are accustomed to the Arabic character and are too lazy to change—the largest group.

(*b*) Professional scribes who fear that the abolition of the Arabic character would take away their livelihood.

(*c*) Those who consider that education consists in knowing where to write "sad" and where "sin"—the most dangerous group.

(*d*) Those who have no knowledge of the Latin alphabet and fear it as something new and difficult.

(*e*) Foreigners who have learnt the Arabic script and earn their living by teaching it.

Objectors to Latinisation in Turkey belonged to much the same groups as the above and it is significant that in neither country was there any considerable body of opinion which argued that the Arabic alphabet has any philological significance in Turkish or Persian or that its abolition would have any adverse philological or, ultimately, any morphological effect on those languages.

It may be seen from the foregoing that the reasons for opposition to Latinisation in Turkey or Persia cannot be said to exist in the Indian Army. The introduction of "Roman Urdu" for Indian ranks is an accomplished fact. It remains to examine the arguments against its extension to the studies of British officers.

The first argument in favour of the Arabic script is that it is the best medium for the study of Urdu phonetics, grammar and syntax. The ideal character for most languages is one based on the principle of "one letter (or symbol), one sound." It is according to this principle that the present Turkish alphabet was composed. The original "Roman Urdu" alphabet was, unfortunately, not based on this system. It makes no distinction between the following letters:

d and "hard" *d*.
t and "hard" *t*.
r and "hard" *r*.
gh and *ghain*.
i and "long" *i*.
u and "long" *u*.

It seems that the composers considered that as simplification was the main object of "Roman Urdu," the hard letters could be dispensed with altogether. Moreover, the present Roman alphabet was designed primarily for Indians who are less likely to make mistakes in the pronunciation of a language which they learn first by ear. Although the Arabic character is difficult and unsuitable for any language except Arabic and particularly unsuitable for Urdu, it is in one respect superior to the existing "Roman Urdu": as amplified by the addition of extra letters it does at least provide an approximate symbol for every consonant sound used in Urdu (except the nasal Sanskrit *n*), whereas "Roman Urdu" lacks symbols for all the hard letters. This would be an important point in favour of the Arabic character but for the fact that distinction in pronunciation of the hard and soft letters between *ghain* and *gaf* or even between *qaf* and *kaf* is seldom attempted by Europeans, is still more seldom achieved and, in the obligatory examinations, is not required by the examiners who, in nine cases out of ten, can themselves neither detect such distinctions nor produce them.

A theory has recently been advanced that while Latinisation was all very well for those who know the language already, it gravely complicated matters for those learning it for the first time. The reason for this was that the student, if his own language were one written in the Latin character, would be inclined to give his own phonetic values to letters which were the same as those of his own tongue. This apparently formidable theory requires closer analysis before it can be accepted. It will be generally admitted that similarities or differences among languages must be fixed rather by sound than by sign. That the French "ch" is pronounced like the English "sh," and the German "ee," "j" and"w" like the English "ay," "y" and "v" are merely a few illustrations among thousands of a very common linguistic phenomenon. Another common phenomenon is that one language may contain several sounds unknown to two or three others. Ignoring the finer "nuances," it may be mentioned that French has no equivalent for the English "th," 'ch" and "j": the Modern Greek cannot write without difficulty "b," "j," "sh" or "ch." English itself is very weak in gutturals. There is, therefore, nothing new or exceptional in the fact that Oriental languages have certain sounds which do not occur in the languages with which we are

most familiar and the use of one or another character does not alter this situation in the slightest.

A third argument, that officers find it useful to be able to read *shikasta* can be disposed of quickly. The standard of manuscript reading required for the Higher Standard is far too low to be of any practical value. Enquiries made by the writer show that probably not more than one in twenty of officers who have passed the Higher Standard can get the sense out of an *average* petition or even of a lithographed Urdu newspaper article.

In his recent book "The Tyranny of Words" Stuart Chase has tried, not unsuccessfully, to prove that much of human misunderstanding and controversy can be traced to the incorrect understanding and use of words. The use of the word "Urdu" in the Army seems a good instance of this. Urdu is not required in the Indian Army nor is it in fact used. The medium for Army Education, for technical military instruction, whether oral or written, the official *lingua franca*, in fact, of the Indian Army, is neither Urdu nor Hindi; it is Hindustani, a language entirely free from the trammels of religion or of literary cult. Once this fact is grasped a great deal of the objection to the use of the Roman alphabet becomes meaningless and unimportant. There may have been a time when a knowledge of literary Urdu was of value to British officers of the Indian Army but that time, if it ever existed, has passed. Officers often ask how they are to find time to learn all that is required of them in the Army of to-day. The introduction of a proper system of Romanised Hindustani would at any rate greatly reduce the time spent on one subject.

The present system of Romanisation is very far from satisfactory. The writer has referred above to the inability of examiners and candidates to pronounce or distinguish the hard and soft letters. He did not mean to suggest that this was unimportant. It would, indeed, be a fatal mistake if an unphonetic Roman alphabet like the present one were made the medium for a new system. Whether the best form of alphabet would include invented symbols to express hard and soft letters and aspirated consonants is a matter which would require careful consideration. Once, however, the principle of "one symbol one sound" is established the best system would soon be arrived at.

A little thought will reveal that, apart from the saving of time, many other advantages would result from the universal

adoption of a Romanised alphabet. If the genuine difficulties of the Arabic or, to a lesser extent, of the Nagri alphabet were removed, the examiners could reasonably insist on a higher standard of colloquial knowledge in the obligatory examinations. There would no longer be any obstacle to the preparation of standard grammars and dictionaries for use throughout the Indian Army. Finally, the shortening and simplification of compulsory language study might increase the (at present) small number of officers who can be induced to study other foreign languages.

THE DISTAFF SIDE

By Enid Scott

Mr. Brayne, the great authority on Indian village welfare, has written to the effect that, ultimately, a man will not rise far above the level of his own home. These are words of deep significance to the Indian Army, for it is from the villages of Northern India that come the men of the fighting forces. From these rural districts come now also the lads who are being trained at Dehra Dun Military Academy to take King's commissions, and to lead the army of the future. This army is being rapidly modernised, and even its lowest ranks share the benefits of a new age. As yet, however, the light of progress has not penetrated far into the soldiers' home life, where old custom dies hard, and where the womenfolk still lag behind the march of time.

When my husband joined the Indian Army eleven years ago, the British officers' wives of his regiment were not encouraged to visit the married men's quarters, or to make contact with their wives and families. So, although we met the Indian officers frequently in our own bungalows, or in their clubs, we knew no more of their domestic life than what we could learn in conversation with them. It was some years before I, personally, was able to form any picture of the home life of an Indian soldier.

A chance came in 1931, when my husband and I spent a few days' Christmas leave visiting the hilly district north-west of Jhelum from which the regiment recruits men for the Punjabi-Mohammedan squadron. For the first time I saw inside the homes of the Punjab country gentlemen of the fighting class. The charming courtesy of our hosts and the delightful welcome we received everywhere have left an indelible memory. Nothing could have exceeded the careful thought that was given to the details of our comfort. All the same, I gained the impression of a primitive domestic background, where the womenfolk, though sharing their husbands' fine natural courtesy, had reaped small harvest from the ways of modern progress learned by the men in the full and varied environment of their military lives.

* * * *

After a gap of six years, during which we were away from the regiment, Christmas 1937 found us in Delhi, near the home country of the Jat squadron. We had invitations to visit some of

the retired Indian officers in the district; so several raw December mornings saw us drive across the wide monotonous plains, where the land was barren and dusty, with scant food for men and lean and pitiful cattle. The rains had failed and the crops had suffered accordingly. In the depths of the country we would reach a mud-walled village, on the edge of which stood a smiling little group of Jat Indian officers, past and present; not so fiercely virile as the men of the Northern Punjab, but with more sophistication of manners and of dress. In warm tweed and camel hair overcoats, with smart pullovers and beautifully cut Jodhpores, they made a keen contrast with the drab groups of villagers who gaped around the cramped and narrow lanes. More incongruous still was the presence, here and there, of attractive well set up young men in English flannel lounge suits—cadets of the Dehra Dun Indian Military Academy, home on Christmas leave.

There was no doubt as to the joy it afforded our delightful hosts to welcome us to their homes, where, in an upstairs guest chamber, tea, cakes and fruit would always be awaiting us. As soon as possible, I would leave the men chatting to my husband and ask permission to call upon the ladies of the household, for with them lay my chief interest. This meant a further climb up steep stairs to the comfortless domestic quarters. Here I would find a shy and fluttered little group of women, with their children, who gazed wide-eyed at the strange English *memsahib*. Sometimes, the wife of our courtly host, who was entertaining the cheery party below, was not only completely illiterate, but could speak no Urdu either. As I know no local dialect, I would find it rather a strain to be adequately gracious and animated by smile and gesture only during a visit that—for courtesy's sake—must not last for less than half an hour. At other houses, the hostess, at least could speak Urdu and we could get down at once to that all-absorbing topic—children.

At one lady's party, I found that my prestige was in some danger, because our son is an only child. The conversation went something like this:

"Your Honour has only one child?"

"Yes, only one."

Chorus of exclamation, as this surprising fact was passed round the circle. "She has only *one* child!"

I hastened to discuss their more numerous progeny and hoped that the subject was now turned.

Not so easily, however, for, in a moment, came the question once more: "Has Your Honour really only one child?" and to the sad admission, the chorus once more chanted, "She has *only* one child!"

I blessed Geoffrey for having the good sense to be a fine, upstanding boy; but none-the-less, an inferiority complex was overwhelming me, till I remembered that my son had weighed ten pounds at birth. I announced this fact with triumph and the effect was instantaneous. Quantity might be gravely deficient, but of quality there could be no question. No woman present had produced offspring of more than five pounds weight.

Children were of paramount importance, but most of these Jat women had passed beyond mere elementary pride in child-bearing. They could take a lively interest in the fact that their children were attending school and boasting of attainments far beyond their mothers' ken. They took some interest in other forms of progress and were anxious for better medical facilities than are at present available near their homes. All the same, it was sad to think how small must be their sphere of influence over a younger generation whose vision has passed so far beyond the mud village walls.

This was what I felt when talking to the Dehra Dun cadets. The young men had come home from the military academy, where life is as full and as active as at Sandhurst, with interests as wide and recreations as stimulating. There, they are better housed than are many British officers in India; with sanitation, wireless, cinemas and other western amenities. From this wider world they come to spend their leave in homes that have not changed much since the days of the old Testament. It was obvious that some of the lads were finding the contrast too violent; though nothing could have been more charming than the manner in which they took their part in the simple hospitality of their parents' homes. But various remarks showed that they were alive to the anomalies of the situation, and that they preferred the new life to the old. One lad told me that, since eating English food, he knew that he could not sustain the strenuous life at Dehra Dun on an Indian diet. Another, more crudely, remarked that he always suffered from gastric disorders when he returned to home food. His words left us a little thoughtful, for we were at that moment partaking of his father's lavish hospitality. One youth who was escorting me up a narrow, filthy alley to his uncle's home said, as I picked my way through the mire, "I apologise for

this. It will all be changed when our time comes." The same young man talked to me of marriage, and of his determination to wed only a well educated girl. But, he added, his father was already in bad odour with friends and relatives at the failure to betroth his son to some girl of suitable caste. All the Dehra Dun cadets seemed equally determined to find educated brides. It will not prove easy, for, although the Jat villages provide primary girls' schools, not many parents are sufficiently rich, or sufficiently enlightened, to continue their daughters' education on wider lines. They do not yet realize that the sons for whom they have striven and saved will not carry on with the old marriage customs. They have been entertained by their British instructors, have met their wives and daughters, and have seen something of Western home life. They will not now be content with shy little purdah brides.

In one Jat home alone did I meet a girl child who had upon her the stamp of India's future womanhood and who was already completely free from the trammels of the purdah system. We had entered the usual guest chamber, together with our host, a retired honorary captain of a cavalry regiment. There were assembled the usual group of Indian officers, who had come from neighbouring villages to greet us. With them stood a nine-year-old child, Gulab, the youngest daughter of the house. Her head was smooth as a seal and, her hair fell in two neat plaits over a clean print frock. Her eyes were wise and candid. There was humour in her wide and shapely mouth. Her father, who adored her, was having her educated at the Rohtak High School. She, too, was home for the Christmas Holidays. She settled herself beside me, and told me of her school life and her lessons, which wisely included a liberal course of housewifery. She talked of the games and of the teachers, and of how, when she grew up, she would be a lady doctor. Her manners and her poise were perfect. There was intelligence in every line of her young face. Her father's friends treated her with the consideration due to a great little lady—the only one I ever met at any of these so exclusively male occasions. Here, I feel sure, will some day be the answer to the marriage problem of one of these perplexed military cadets. The enlightenment and the sophistication of Dehra Dun and a King's Commission will find a match in Gulab of the sleek head and already wise yet candid eyes.

* * * *

In March 1938 we rejoined my husband's regiment. Almost immediately after his arrival, he was sent on a short tour of the

surrounding districts to resume contact with army pensioners, to hear and make notes of their problems and to get in touch with likely recruits. At the same time, the tour was to provide entertainment on its way; for which purpose were included a soldiers' hockey team, a pipe band, and all facilities for the giving of tea parties. Needless to say none of these diversions were intended for the benefit of the pensioners' ladies.

I joined my husband for part of his trip, which lay through fertile irrigated country, among rich green crops, and along the banks of canals, with entrancing views of the distant snow-capped Pir Panchal range. Here, we were in the home country of the Sikhs, near their holy city of Amritsar. I found that the stalwart vigour of that enterprising race was reflected, to some extent, in their womenfolk. They appeared more alert than those I had met in other districts, their bearing more free, and they seemed to be on terms of greater equality with the men. We had tea with an aged *ex* risaldar, and when I climbed the stairs to visit his elderly wife, I found her sitting in a comfortable chair by an open window looking towards the setting sun. As we sat and talked in the cool of the evening, she told me of the many stations to which she had accompanied her husband during his service, and of her experiences in the married lines. Her manners were easy and assured. It was obvious that she had known and absorbed something from the wider world. In the cooking place, I saw an elaborate pumping apparatus. She told me that it has been installed by her son to save her carrying water from below. It was he also who had fitted the house with surprising and most efficient electric light. Her daughters were away at school. There were many small indications that in this home domestic life had, in some measure, advanced with the times.

It was in a Sikh house also, that I saw a fat, naked baby, kicking and gurgling contentedly, under a large, blue gauze meat cover, protected from the flies that swarmed around. This was a pleasant sight for the average Indian village baby is apt to be distressfully fly blown.

In this neighbourhood I met an old lady of advanced ideas. We had reached a village green, deep in the country, where it was intended that my husband should preside at a pensioners' tea party. Unfortunately, news of our coming had miscarried, and all the men were scattered far and wide among the crops. Word was hastily sent forth to collect as many as possible, and my husband went off into the village. Meanwhile, the dogs and I sat under a

shady tree, resting, and awaiting developments. Preparations were made for tea, and the pipers tuned up with "Blue Bonnets Over the Border," to the huge delight of a mere civil remnant of the population, including the children and a few women who all sat far off at a respectful distance. Presently, a few of the scattered military gentlemen came straggling along and with them, to my intense surprise, an aged, ancient crone. She was quite toothless, and could speak no Urdu. I was informed that she announced herself to be a soldier's widow, had a son serving in the Royal Indian Army Service Corps and considered herself in all ways entitled to join the party. Such daring and such dash were, in my opinion, vastly to be commended. Judging by the chuckles of the men who were preparing tea, they were of the same opinion. I gathered that her conversation was of the raciest, for she was soon the centre of an appreciative group. I meant to see that she had a really good tea, but in the business of greeting the now rapidly increasing number of guests she was temporarily overlooked, and not to be found again. Even her courage must have failed the game old lady when she found herself so outnumbered by stalwarts of the sterner sex. If only young Gulab of the Jat country had been at her side, she would have found support.

Our satisfaction that the dawn of domestic progress had reached some of the villages of this district suffered a set-back on the return journey to Lahore. We had stopped in order that my husband might meet a party of *ex* soldiers. I was chatting to the senior Indian officer present, an imposing Punjabi-Mohammedan of the old school, complete with fierce moustaches and henna-dyed beard. I asked him what educational facilities were provided for the girls of his village, to which he made reply:

"*Memsahib,* we don't allow our girls to be educated, as it renders them sickly and unfit for marriage."

"But," said I, "English women who are educated remain healthy and make good wives."

"Ah, *Memsahib,*" came the answer, "that is because every English lady is a queen."

Such heavy gallantry pleased me not at all. I found him an infuriating old diehard. I fear that death alone will rid him of his outworn prejudice and free the girls of his village from the bleak boredom of illiterate lives.

* * * *

Now that we had seen something of their home district, it was pleasant to find that my husband was to command the Jat

Squadron. It is pleasant, also, to know that when the regiment moves in the autumn, these men will be serving near their own country. Very soon after our arrival, I went to call on the wives of the Indian officers and we were able to discuss our mutual friends in the villages, whence they come to join their husbands for varying periods in the family lines. I found that it was expected that I should give warning of an impending visit, that full preparations might be made. I would not fall in with this custom, for it is only by unexpected visits, that one can discover a little of the manner in which these women really live. This was regarded as a regrettable eccentricity on my part, and my unheralded arrivals were greeted reproachfully with, "*Memsahib*, why did you not send word beforehand, so that all could be made ready for your coming?" They were unconvinced when I told them that *my* house was always open to inspection.

Often, I found their homes untidy and even squalid; beds shoved anywhere, frowsty and unmade; dirty cooking pots, covered with flies; unswept and littered floors. The Indian officer generally employs his syce to help in his quarters, and the Purdah system, always so full of apparent contradictions, does not seem to function where this man is concerned. The non-commissioned and subordinate ranks have no such servant, and their quarters are more cramped; but most of them seemed to be better tended. It was a pleasure, sometimes, to enter the tiny courtyard whence a shy and smiling Jat woman would lead me to an orderly verandah, with cooking pots neatly arranged near the fireplace in the corner, and with bed and folded mosquito-net placed at the other end. In the little inner room, her husband's gear would be hanging from the wall, with spare articles stored in tin boxes on the floor. Sometimes she would show me a piece of embroidery or knitting; or point with pride to her baby's latest tooth. The reverse side of the picture is painted large with flies, squalor, and neglected children. But, however comfortless the home, the fine courtesy of the hostess never varied.

Once, when an Indian officer of considerable enlightenment was calling on my husband, I took the opportunity to ask him how it was that the men who in their military environment live under conditions of order, cleanliness and general smartness can tolerate the often squalid condition of their homes. He replied that the cleanliness and smart turnout of the men are not yet inherent in them all, and are not yet a necessary part of their personal welfare. These habits are, he said, maintained by military discipline, and for some would vanish, were military

discipline relaxed. Such men still find their natural background in the drab discomforts of their own domestic life. It was obvious that Risaldar Bharat Singh agreed with Mr. Brayne, that a man's progress towards civilization must be gauged by the standard of his own home. For the apathy and slovenliness of so many of the women, he blamed the dull inertia of their lives and the lack of occupation in their necessarily cramped quarters. At home in the villages there is at least work among the cattle and on the land. When they join their husbands in the regimental lines, lacking the instinct for house and mothercraft, they *need* do no more than cook. The husband draws rations and does the family shopping in the regimental bazaar. The washing is done by squadron *dhobis*. The women lack even the exercise of climbing stairs. Many of them are sickly, and tuberculosis is a not uncommon complaint. It is a puzzle how some of them manage to breed men of the fine physique to be found throughout the Indian army. The answer would seem to be that the race is sound enough, but that their often ailing condition is due to the results of unenlightened child bearing and to an unhealthy mode of life. I did not visit all the Sikh and Mohammedan women in the lines, but from what I did see, and from what I was told, conditions among them to be very similar to those prevailing among the Hindu Jats.

* * * *

In every Indian regiment now there is a family welfare centre that has come into being during recent years. I can only write of the little I have seen, since returning to the regiment, of the work of our own centre. It seems to me that here lies the nucleus of a rich sphere of uplift in the soldiers' home life. The centre is run, more or less, at the discretion of the regiment, with the aid of certain outside grants, and under the ægis of a central station committee. In all of them, an Indian nurse is in daily attendance in the dispensary to give simple treatments, and an Indian lady doctor comes twice a week for consultations. This is a poorly paid appointment, and must be a disheartening one, for many of the women are still slow to avail themselves of medical aid. They cling to the old superstitions and have almost no knowledge of the first principles of hygiene. All the same, I think that our lady doctor is unduly pessimistic about the results of her work and too prone to regard it as an impossible task ever to teach the women a healthier way of life. She complained to me that her advice was ignored, and that her weekly welfare talks fell on deaf ears. Personally, I think that her methods are partly at fault and

that, instead of scolding her patients for their disregard of the common laws of hygiene, a more persuasive manner would do much to gain their confidence in her wisdom and her skill. None-the-less, it is true that when they do report at the dispensary the women are apt to be discouraged if an immediate cure does not follow the first dose. They are apathetic and unwilling to make any personal effort to master their ailments or those of their children. They have a horror of being sent to hospital, but this is readily explained. Under the present system, any soldier's wife or child admitted to a Government hospital must, almost always, have a female relative in attendance to augment the services of an insufficient staff. This means that, in the case of a child, the mother must go too, leaving her husband to cook and fend for himself and any other members of his family. He may always be excused duty, but the situation is no more popular on this account. If the wife be sick, a female relative must accompany her to hospital, often at great inconvenience. The services of a paid woman may be obtained, it is true, but this costs money. At present, in the opinion of the average Indian soldier's family, the disadvantages of hospital treatment may be said to outweigh any possible benefit.

One day, when I was at our dispensary, a non-commissioned officer's wife reported with serious gland trouble which was causing her great pain. On being told that it was necessary to go to hospital, she, her mother and her aunt, who were both with her, all set up such a clamour of wailing that one might have thought that she had just received sentence of death. The little daughter of a regimental cook was seriously burnt. She was lying near death, with her injuries smothered in cooking fat, when the accident was reported two days later to a British officer's wife—one who does much to help the families in our lines. The latter did all in her power to persuade the parents that only in hospital might the child's life be saved. But their attitude was one of utter apathy. It was God's will that the child should be burnt; they had done all they could and if she now died, that was God's will also. I may add that, had she been a boy, God's will might not have been regarded as so irrevocable. Great pressure on the part of the officer's wife secured the child's removal to hospital and, thanks to her untiring efforts, everything possible was done to effect a cure. But during the three weeks that the little girl lingered there was constant grumbling by both parents, because the mother had to remain at her side. In the end, the poor child died, and perhaps it was as well, for she would have been maimed

and marred, a burden to her parents, and a glut on the marriage market.

The picture is not always so gloomy. Some women in the lines make regular use of the welfare centre and regard it as a cheery "coffee house." They come there to hear the health talks and to learn knitting from an officer's wife. Expectant mothers receive prenatal care; some of their babies are born in hospital; and those with the post-natal troubles so common among ignorant women are recovering by means of regular dispensary attention. Children are being treated daily for discharging ears, sore eyes and other minor ailments. The nurse attends patients in their own quarters. One day, when I was watching the doctor give her consultations, I saw a little girl sitting near the door. Her eyes were hideously disfigured by disease, she looked vacant, dirty and neglected. The doctor admitted that the child had serious eye trouble but, she added, the step-mother would not follow up any line of treatment, so nothing more could be done. Meanwhile, the child was at large among the other children, a misery to herself and a constant source of infection. This could not be tolerated, of course. The father was sent for by the Second-in-Command, and told that, unless the wife did her duty by the child, there would be consequences. Meanwhile, little "Mulberry" (that was not her name, but it sounded like that) had regular medical attention, and was made to wash—at least her face. A fortnight later as I was walking through the lines, a cheerful voice hailed me and I saw her again, with eyes almost cured and a clean face, laughing and playing like any normal child. For little "Mulberry" the world is now a brighter place.

From my very small experience, I think that the success of a regimental welfare centre must largely depend upon the personalities of those concerned. It must depend, also, upon their constant and sustained efforts to persuade the women that, although cure does not automatically follow medical treatment, attention to rules of hygiene will lead, ultimately, to more health and happiness in their homes. Constant visits of supervision and encouragement by British officers' wives are necessary lest the doctor become perfunctory in her consultations and the nurse forget her hospital training. Left much to themselves, they too will sink to apathy and slovenly ways.

* * * *

Apart from the work of the regimental welfare centres, there does not, as yet, appear to be any very solid and universal movement to help the Indian soldiers' domestic circle to enjoy the fuller

life of modern times. Such activities vary in different units. The Gurkha Regiments have built up a most successful women's knitting industry which produces knitwear of all kinds and of first-class workmanship. Some regiments organise baby shows, and competitions for needlework or well kept homes. Some British officers' wives visit the women and invite them to their own bungalows. Others, however, still hold aloof from the families of the men who serve under their husbands, either from lack of interest or because (not without reason) they fear the risk of bringing infection into their own nurseries. Very little is, I think, being done for the children, for whom there are no educational facilities in the regimental lines. Certain Indian officers send their boys to private schools in the neighbourhood, but the majority of the children receive no education during the varying periods that they are with their parents in the regiment. One hopes that in the future, perhaps, each garrison will be able to organise its own family school, where, if only for an hour or two a day, the girls, as well as the boys, may be educated in body and in mind. Men of subordinate rank attend daily school: it should not prove too difficult to extend such facilities to the children also.

The cinema and wireless can provide a useful source of uplift for illiterate adult folk; as thereby the educative pill may be richly gilt with humour and entertainment suitable for simple minds. In March last, a first effort of the kind was arranged for the Indian women of the Lahore Brigade. The programme at the cantonment cinema included Coronation pictures, a comic cartoon and a film on village welfare. This entertainment was largely attended, each unit arranging transport for its own women. The Coronation picture was a somewhat disjointed hotch-potch of many films, and although the audience was vastly enthusiastic, it must I think have gained the impression that the Coronation ceremony was a very curious one indeed. The uplift film showed life in a model village, as opposed to one untouched by modern progress. I could not follow the commentary very clearly, and was, I must admit, sometimes at a loss to discover whether we were being shown the model village, or the reverse. All the same, it was quite clear that the man without a mosquito-net was being simply devoured by mosquitoes with distressingly malarial consequences, and that the members of the model village co-operative society were amassing an astounding number of rupees.

At the end of this show there was a rare sorting out before we could assign the various ladies to their own regimental lorries. We counted and recounted our contingent, but on reaching the

lines we found that we had one woman too many. She was a forlorn and weeping figure, who could give no better account of herself than that she lived near the aerodrome, and that on her return her husband would beat her for having been out with another man. We located her in the Punjabi Lines, to which she was driven by a kindly officer's wife who sought out the husband and assured him that his wife had been near no other man, and must on no account be beaten. He may of course have had his own reasons for inculcating such fear of reprisals: but to the casual observer there was nothing to indicate that his grubby, *burka*-clad and terror-stricken little wife could ever be either flighty or gay.

* * * *

If the present regimental welfare centres could each be extended to include a social and recreational club, such a scheme would, I think, do much to vitalize the Indian soldiers' family circle and stimulate the apathy of idle lives. A small garden would be essential where the women could sit and chat, besides learning to play tenniquoits and badminton; and where the children could amuse themselves amid surroundings less arid than the dust of the regimental lines. A wireless set would provide entertainment and occasional uplift. In time one hopes that the women would learn to get up simple charades and invent other ways of organising their own recreation. Greatest boon of all, such a club would provide an alternative to their own quarters, to which by existing social conditions they are so monotonously confined. A scheme like this would, I believe, be beyond the scope of existing regimental funds. It would entail considerable sacrifice of time by British officers' wives; for on them, at present, would fall the main task of organisation.

It may well be argued that all such effort runs the risk of failure in a community so restless and so shifting as is the Indian army, where the only certain thing in life appears to be the uncertainty thereof; where constant change of station and the ever recurring advent of the Hot Weather write "finis" on so many budding schemes. It may further be argued that the Indian soldiers' families have done very well in the past, and that there are no complaints—least of all from the families themselves. But amid so much that is brutal and callous in the modern age, a hopeful sign is that, within the British Empire at any rate, there is a growing conviction that everyone should have a chance to pick up a few of the plums that fall in the strange harvests of our Brave New World.

Meanwhile Pandit Nehru and his friends, both here and in Europe, preach of an Independent India, steering her own course untrammelled by the strictures of British Imperialism. In the dream politic, let them, as well as us, ponder the words of Mrs. Nehru, who observed recently that a nation is not complete with mere political liberty, but that culture and thought should pervade every aspect of life; the words of Mr. Brayne, also, to the effect that ultimately a man will not rise far above the level of his own home.

Note.—Since writing the above I have learnt that in some stations there is a central family welfare centre which serves all Indian units in the cantonment. This is said to be more efficient than the individual regimental system.

THEN AND NOW

By H. Jay

"How very little, since things were made,
Anything alters in any one's trade."

—*Kipling.*

After reading some old files of beautifully scrolled copperplate letters the truth of Kipling's dictum becomes increasingly clear. The principles of war are immutable (in spite of the fact that one or two are deleted from successive editions of field service regulations) though their application may differ. So also are many of the manners and customs of the army. To-day the Adjutant-General sends out printed pages of errors committed in courts-martial; his office has done it for years. Yet those little mistakes continue and it is a relief to know that our great-grandfathers, made them and probably their forebears too.

On the 21st of August 1857 Conductor H. Bourke got very drunk in the traveller's bungalow at "Baitsee" somewhere near Belgaum. He was placed under arrest and sent into Belgaum from his station at Sawantwadi. His trial was a bit of a problem as, by the time the witnesses had all travelled to Belgaum, there would be no one left in Sawantwadi! So Major-General T. P. Lister, commanding the Southern Division of the Army, asked if the Conductor could be dealt with departmentally, especially in view of the fact that "he is, I believe a man of very indifferent character and was previously put into arrest at Old Goa for drunkenness." But the law had to run its course; Sawantwadi had to be evacuated for a week or two and, at a European General Court-Martial held on the 5th of October, Bourke was found guilty. He was sentenced to be "reduced to the Rank and pay of Serjeant." But the Court added a recommendation to mercy "on account of his long service during which time he appears by his testimonials to have borne an excellent character, and conducted his duties to the satisfaction of the officers under whom he was employed." However, Sir Henry Somerset, the Commander-in-Chief at Poona, had yet to have his say: "No. 112 Article of War requires that no more than two of the Members shall be under the rank of Captain, and on this trial four Subalterns have sat as Members of this Court. The Court-Martial has been illegally constituted and the Proceedings cannot be confirmed—the prisoner to be released and will return to his

duty." I suppose someone got into trouble, perhaps even the name of the erring staff officer was reported to the Adjutant-General!

Courts-Martial in those days must have been tricky things, in spite of the fact that the only crime seems to have been drunkenness. Sawantwadi, also, must either have been a very gay or else an extremely depressing place as on the 15th of September 1857 Major Auld "begs to inform Serjeant Galbraith (all very polite) that the Commissariat Serjeant here with the Detachment of H. M. 33rd Foot has again been drunk and misconducting himself and would suggest that someone else be sent to look after Serjeant May's duties at Waree."* This time the mountain went to Mahomet and the court-martial was held at Sawantwadi. The finding I could not trace but something went wrong for the Acting Deputy Adjutant-General of the Army said: "but still His Excellency cannot permit the court-martial to afford the grounds for his removal, as by admitting such a result to the trial, the G.O.C.† of the 9th of May 1855 founded on the rule obtaining at the Horse Guards. will become a dead letter." So May also got away with it; but did the staff officer? Two errors in two consecutive months are a lot to condone, though how people were expected to know the Horse Guards rule is difficult to understand.

Then, as now, the officers' bungalows problem was a pressing one. The situation at Karachi was further complicated in 1852 when a gentleman called Von Geyer, who owned nearly all the houses was haled to prison for embezzling Government money. He then ceased to be a gentleman and for the next five years is politely called in all correspondence the "convict Von Geyer." His crime must have approached the Hatry scale as for years Government proposed to take all his house rents as an offset against his defalcations. In one half-year the rents amounted to Rs. 2,400. The trouble was that all the houses in Karachi were of the temporary type, not unknown to-day, and had to be repaired, almost rebuilt, after the annual rains. Who was going to repair Von Geyer's houses? Were officers to live in the open air, or open rains, or was the benign and noble Government to act as the estate agent of a vile criminal during the whole of his incarceration? Was Government to forego its pound of flesh and use a large portion of the rents to pay for repairs? To do this would swallow most of the income and, when the Government of Bombay

* A diminutive for "Sawuntwarree" as it was spelt in those days.
† General Order in Council.

received his estimate, they told the Executive Engineer, Lower Scinde Division, that, though they might repair, they did not see why they should rebuild the houses. They were soon disillusioned as the Engineer replied on the 8th of May 1852 as follows:

> "With reference to this office Estimate Rs. 1,549 for repairing the Convict Von Geyer's houses . . . I have the honour to inform you that there appears to be some misunderstanding regarding the nature of the repairs provided for in that Est'ate. I had merely provided for patching up the buildings and not for thoroughly repairing them as the cost of doing so would be very heavy . . . My own Bungalow suffered more from last year's rains than any in the Camp that did not actually fall down . . . many of Von Geyer's houses afford good accommodation in fine weather but are not worth the expense to the owner of rendering them substantial buildings."

It rather looks as if, in those days, officers also applied for leave because their "house had fallen down."

Government compromised, as Government always have and always will; and this led, as usual, to some nasty problems. It was decided to charge a very low rent for the bungalows on the understanding that the tenant carried out the customary extensive repairs after the rains at his own expense. The next thing that happened was that, in early 1854, a Captain Hill was so disgusted with the state of his "house"—"No. 65, the property of the Convict Von Geyer," that he submitted a petition to Government. It must have been a very inconvenient one, the type that Governments pigeon-hole in the hope that, in time, it will answer itself. Apparently Captain Hill had been served like that before and was not going to be "had" again for, on the 22nd of September, a sad bleat leaves the "Superintendent of Bazar, Camp Kurrachee."

> "Captain Hill whilst in India subsequently refused to pay the monthly rental of the Bungalow pending the decision of his application and he has lately Embarked for Europe on Furlough leaving upwards of six months' rent unsatisfied.
>
> "Lieutenant-Colonel Turner on Captain Hill's behalf has expressed his readiness to pay such amount of House rent as you may decide to be due by that officer on the understanding that no further claim will be made against Captain Hill for the dilapidated state in which he left the Bungalow and to repair which the sum of Rs. 375 has been expended . . .

"... I apprehend that Captain Hill must be held responsible for the amount lately expended in the repair of the Bungalow he occupied in addition to the sum claimed for house rent."

Colonel Turner must have heard about that last paragraph for, on the 20th of November, the Superintendent reports that "Lieut.-Colonel Turner now declines paying the amounts due by Captain Hill for the rent of the Bungalow belonging to the Estate of the Convict Von Geyer." The Superintendent goes on to say, very hopefully "I hope that you will favour me by obtaining the authority of Government for its collection through the medium of the Pay Department of the East India House."

Somehow that request seems to have a very modern sound. In the light of our own experiences we probably all hope that Government decided not to worry the "Honorable Court" about a matter which could only bring into the lime-light the fact that they had not had the courage in 1852 to give a real decision and had tried to shelve it by a poor compromise.

The files do not say how the audit objection was settled, those necessary but none-the-less annoying remarks being as prevalent in those days as in ours. In fact they were an even greater trial then as every officer was personally responsible for his stores, a security deposit being taken from officers of the Commissariat Department as a further precaution. For example, instead of supplies being on charge of Karachi Supply Depot they were sent to and had to be accounted for by Captain A.B.C .... personally. Nowadays we settle many objections on the spot, though some drift on for about a year. What should we say to-day to a letter that raised a debit twelve years old as did this one?—

"I am directed by the Military Board to inform you that the Military Accountant General has been requested with reference to my predecessor's letter dated the 29th December 1841 to credit the sum of Company's Rupees thirty, annas six, and pies four to 'Government of India Advance Force Scinde, former years,' and debit the same to Lt.-Colonel Davidson."

And that letter is dated the 29th of April 1853, twelve years after. Here is an even better, or worse, one dated the 4th of April 1853:

"... reference to my predecessor's letter dated 20th October 1842 the Military Accountant General has been requested to credit the sum of Company's Rupees one thousand five hundred and thirty annas five and pies six to 'Government of India Advance' and debit the same to you, leaving you to adjust the same in the Kutch accounts."

This is our same friend, Lt.-Colonel Davidson then Commissary General at Bombay, who can hardly have been overjoyed at having his personal account debited while he himself was left to recover the amount from someone somewhere if he could after twelve years had passed. Nearly all these audit objection letters open with a reference to "My predecessor's letter" which is hardly surprising but seems a trifle naïf.

On the 30th of October 1854, while on tour in the Deccan, Lord FitzClarence, the Commander-in-Chief of the Bombay Army, died and his large quantities of kit had to be carried down to the sea. Admittedly he had a lot of stuff, in fact it took "25 platform carts, 10 camels, 200 tattoos saddle, 50 coolies and 500 bamboo coolies" to carry it to the top of the Ghats. From there onwards it was moved by a mere 700 coolies and 125 *biggaries* (*bail gharies*—bullock carts). Still he had been Commander-in-Chief. The truly disgraceful and undignified haggles that arose as to how much baggage the dead Chief was allowed, who should pay for the difference ("if any"—said cautious audit) and why was not some sold locally would be a credit even to modern departmentalism.

However, all that was public money so the haggling was perhaps excusable; but for sheer stinginess it is difficult to beat this:

> "I have the honour to request that you will have the goodness to pay to Lt.-Colonel Birdwood the sum of Rupees four and annas eight from the amount in deposit belonging to the Estate of the late Lieutenant F. M. Smith, 4th Regiment Native Infantry (Rifle Corps)."

British troops, or any other troops for that matter, change little as the centuries go on. But they learn more finesse and it is difficult to imagine a modern (mechanized) cavalry regiment trying to bring off such an obvious "ramp" as the 10th Hussars tried in 1854. The year was a bad one for India; famine was rife, animals were dying by the thousand and the unfortunate peasants by the score. But the 10th Hussars at Kirkee decided that nothing could be allowed to interfere with the high (?) standard of their beef. The basis of the trouble was that the "compensation for dearness of rations" payable to the men was reduced from Rs. 2-7-4 to Re. 1-2-4. As usual, the Government order took some time to filter down to the men. Then one day the whole meat ration was condemned, good though it may have been. The contractor had to pay the unit the value of the ration and was also fined Rs. 25, the latter being paid to Lt.-Colonel J. Wilkie, commanding H.M.'s 10th Royal Hussars. This bonus was too good to be

true, a second condemnation might mean an even larger sum, so the Regiments promptly proceeded to "kill the fatted calf" in more ways than one. But the next time the Commissariat officer refused to fine the contractor, he being of opinion that fining was at his discretion and quite rightly mistrusting the 10th. On hearing this a very angry Wilkie wrote:

> "In reply to your letter of this day's date stating that no fine would be levied on the contractor for the bad Meat condemned this morning and that none had been levied for that condemned on the 11th instant, I have the honour to state for your information that considering the contractor would be fined I caused one anna and six pies to be issued to each man who did not receive meat rations on the 11th instant.
>
> "I have therefore to request to be informed how the deficit arising from the amount of the Ration and the money advanced to each man is to be made good."

That little effort rather "blew the gaff" but the Regiment stuck to it while the Commissariat officer tried to get another contractor. The extent to which the 10th went can be gathered from the remark,

> "In conclusion I will merely submit that the sole fact of 15 committees which condemned the meat during a space of 25 days furnished good if not imperative grounds for recommending a cancelling of the contract."

The trouble here was that, somewhat naturally, no one could be found to take on a fresh contract which was apparently to consist of paying to the Regiment the daily cost of the ration plus a routine daily fine of Rs. 25. The old contractor asked to be allowed to give up the unequal contest and was quite happy that Government should absorb his security deposit of Rs 2,500, a very considerable sum in those days. It gives some idea of what he thought he was losing. By then the regiment had realised that it had overdone it and the Commissariat officer, in reporting that no one within five hundred miles would take on the contract, wrote to the Commissary General to the effect that,

> " . . . under the circumstances there was nothing to be done, I thought, but to continue the present contract in the double hope that the contractor would make greater exertions to give satisfaction and save his deposit and that after the representations I had made somewhat less would be exacted from him by receiving parties, more especially the 10th Hussars. His hope has been realised and committee proceedings (to condemn bad rations) are now of comparatively rare occurrence."

I feel that the modern "racketeer" was not in it compared with Colonel Wilkie and his optimistic regiment. However, their bluff was called and they came hurriedly to earth, possibly because the Colonel had to pay up the money, or expected fine, that he had advanced to his men. The matter was referred to Government but, as so often happens, they gave no decision hoping that the matter would blow over, as it did. In case anyone thinks it is a good scheme I may remark that it is no good trying this swindle nowadays as, in modern Government contracts, there is no such thing as a fine—so we have progressed a little.

Naturally a file that covered six months of complaints must have contained at least one from the Gunners and here is the "grouse" of "Charles Clarke, Lieut., Commanding No. 15 L. F. Battery" who, being unable to keep his bullocks in good condition by his own efforts decided that the "grass" issued was unsuitable. His battery was in Sholapur, not far from Poona, where he had relieved a (surely impeccable) horse battery. The grass had been put in for the horses of that unit which, considering Clarke only had bullocks, all goes to show that a Gunner can grumble at anything! His letter is dated the 27th of March 1857 and, with the usual complete disregard of the "usual channels," he sent it to the Commissariat officer at Sholapur. Perhaps we may forgive him for forgetting that, in the army, you should invariably send a letter to the person who is least likely to have any knowledge of the local situation. Anyway, here are some of the things Clarke said,

> " . . . the Bullocks of the Battery under my Command will not eat the Grass issued to them from the Stack left by the 1/2 Artillery, they leave daily a considerable quantity so that already a small Stack is beginning to appear from their leavings.
>
> "The quantity issued to them (25 lbs.) is the same as they had at Kolapoor but at the latter station the grass they got was much fresher and greener than what they get now and consequently not being accustomed to such dry grass they leave a good deal of the daily allowance and although they have been 2½ months here they are still in poor condition compared to what they were and what they should be. The animals have now been fed for five weeks on this grass which seems ample time to give opportunity of judging on the matter.

"I have therefore the honour to request . . . the Animals being fed on at any rate half Kurbee on which food they thrive very well.*

"There is no reason why the Grass should be a loss to Government as in the event of a Horse Battery being sent here again the horses will eat it and thrive on it while the Bullocks do not; and if they are to wait until the Stock is exhausted it will be fully three years before 50 Bullocks can consume it."

We cannot congratulate him on his English, even for those days, but he seems to have made the best of a poor case as, compared with horses, bullocks will eat almost anything. But it was now the Commissariat officer's turn, one Captain H. M. Holland, and, to open the ball, he was a little crushing about Clarke's lack of knowledge of procedure.

"As the subject of the enclosed original letter from the Officer Commanding No. 15 Light Field Battery at Sholapoor, should in the first place have been represented to you, as the Senior Officer of Artillery of this Division, I have now the honour to submit it for your consideration, with the request that you will kindly favour me with your opinion thereon.

"The plea on which Lieut. Clarke rests his suggestion, that the Forage Ration of the Bullocks should be changed and that they should be fed on half Kurbee. appears to me to be altogether insufficient, particularly as the Grass which the Bullocks are said to reject, is in his opinion quite good enough for horses.

"The Grass in question was originally purchased for the use of the Horse Battery lately proceeded to Persia,† on the departure of which the Government took on the whole quantity on hand, and you will therefore perceive that it is a matter of great importance, that it should be consumed as quickly as possible, to save the State from loss.

"The Bullocks of No. 15 Light Field Battery are now receiving the same rations I presume, as when they were at Kolapoor, and therefore any deterioration in their condition, is in my opinion attributable far more to the

*And at some expense too. Kirby is the chopped thick stalk of the millet, green and juicy.

†With the Persian Field Force.

neglect of the Muccadum* and Drivers, than to the quality of the Grass, which is admitted to be such as horses would thrive on—and were these individuals given to understand, that they will be held responsible for the condition of the Animals on their charge, I have every reason to believe that an improvement will soon take place."

Any deficiency in Clarke's use of punctuation is amply made up by Holland who uses commas with riotous abandon. However, all that remained was for Captain V. S. Kemball, the "Senior Officer Command of Artillery, Southern Division of the Army," to bring the correspondence to a tactful termination. This is what he said,

" . . . I have the honor to state that Lieutenant Clarke should in my opinion abstain at least for the present from complaint of the grass furnished to his Battery Bullocks. The Grass should under the circumstances be doubtless consumed as early as possible. The probability of a Horse Battery at Sholapoor seems by no means imminent and provender of this kind deteriorates by keeping. This suggestion might be communicated to Mr. Clarke through the Agent,† and both it is to be hoped will employ their utmost vigilance in Supervision of the Muccadums. In the meanwhile I trust that you keep in view the great importance of maintaining Gun Draught Cattle in good working condition and that you will render your aid to any reasonable measures for improvement of those at Sholapoor. It is possible that by sprinkling a little Salt and water over the daily ration the Grass would be rendered more palateable to the animals.

"Lieutenant Clarke will be desired to transmit such complaints in future to the Officer Commanding the Artillery of the Division."

Having had his typical artilleryman's grouse we hope that Clarke and his "muccadums" found time to look after their bullocks. In 1857 the grass was not green enough, in 1927 the bran was poor and, I suppose, in 1947 there will not be enough octanes in the petrol.

From this we pass to an appeal of a different kind, a petition of a supply agent on Rs. 15 a month who had ambition to become

*Supervisor of drivers, all of whom were civilians and hired complete with their bullocks.

†The supply agent at Sholapur.

"The Head English Writer at Thurr and Parkur" (the modern spelling I do not know but the places are somewhere in South India). He lost his job through a combination of Government lethargy, his own ill-health and the effect of the monsoon! The following extract from his application shows him to have been very astute in that he wanted to keep a lien on both jobs:

> "As I don't know whether the climate of that Quarter will agree to my health I further beg your honor may grant me leave of absence on substitute for three months to join the appointment, because if the weather may disappoint me there I shall return to my present post."

On the 16th of March 1857 the Magistrate offered the post to the agent. The usual interminable correspondence followed. The applicant pleaded great urgency as the monsoon was imminent when he would be unable to get a country boat to take him to his destination. On the 1st of June there being still no sign of a relief for him, the agent gave it up and wrote:

> "I beg most respectfully to inform you that the raining is commenced here from the last 6 days and so I hope the impossibility of my being able to proceed to Bhooj now, will be early considered, and besides my constitution is not in proper condition as it is day by day getting ill with a slight fever which comes me every next day from last week."

His standard of English, surely an essential requisite for such a post, compares favourably with that of the modern "B.A. plucked."

How pleased with ourselves we are apt to be when we talk of the amenities that are provided (or rather that we would like to provide) nowadays for the troops. Yet it looks as if some of these are as old as Adam, or very nearly. For example soldiers' gardens. To-day these gardens grow vegetables and we are rather proud of them as an innovation. Yet in 1850 Brigadier Robertson at Deesa went one better for he arranged for a large area to be enclosed, part being used for vegetables and part for a shady flower garden where the troops could relax amidst brightly hued, scented surroundings. Unfortunately (one is tempted to say "naturally") the experiment failed as efforts to help troops so often do. In 1852 General Auchmuty had to give the quietus to the flower garden as no one used it. He said, " . . . it appears nearly conclusive as to the fallacy of any expectation of improvement in the habits of soldiers from the institution of gardens, at any rate at present. It does not appear that there is the slightest probability of the garden ever becoming a place of resort to the soldiers

and their Families." That was the flower garden; remained the vegetables. In those days the soldier had to pay for most of his peace rations out of a miserable allowance. Government expected them, therefore, to buy the vegetables they grew, admittedly at the low rate of 52 pounds to the rupee. But Deesa was far away from the headquarters of the parsimonious and soulless Government who, when the accounts eventually came in, were horrified to find that, far from making a profit, the garden involved a heavy annual loss. Had not the soldiers been paying for the vegetables as per Government Resolution dated so and so? Of course the poor devils hadn't. Aided and abetted by every officer from the local Brigadier downwards that bit of the Government resolution had been overlooked. It took a lot of explaining—I suppose officers still go on "explaining" little things like that to-day.

Then there is that modern innovation, the swimming bath, which caused Lt.-General Staveley, Commander-in-Chief of the Bombay Army, such a lot of writing in May 1852. He discovered that in his Army the unfortunate troops had to pay out of their canteen (*i.e.*, beer) profits the whole cost of the bullocks which laboriously filled the plunge baths. On the 8th of March he wrote to the Quartermaster-General of the Army in India. In reply he was told that in the Bengal Army the troops' baths were filled by Government and the "Secretary to the Government of India, Military Department, H. M. Forces in India with the Governor-General" went on to say,

> " . . . as Government provide Baths for the use of Soldiers of European Corps, the most noble the Governor General considers that they should be filled at the expense of the State.
>
> "When Government cattle are available they are to be employed, but in cases where it becomes necessary to hire Cattle, the Charge will be defrayed by the Commissariat Department."

That went to the Military Board of the Government of Bombay whose Secretary said,

> " . . . agreeably to the practice in force at Bengal, and which will doubtless be made applicable to the Presidency, the bullocks required for the Plunge Baths should be supplied on requisition by the Commissariat Department, the expense to be borne by the State."

Mercifully water is not now the problem that it was then, though it is still scarce at Aden. In those days the shortage on the "barren rocks" must have been acute. The state of things before 1853 was truly appalling for the Commander-in-Chief wrote, "to

spare the troops a heavy outlay on their resources the Commander-in-Chief solicits that immediate orders may be given to issue from the wells at Bir Ahmed such quantity of sweet water as may complete the daily allowance thereof to every fighting man at Aden to three gallons." The Bombay Government issued a typical edict. I have studied it and it seems to sanction the issue of three gallons but directs that only two be issued, and even that is under further consideration. Government said,

> "I am to request that by the mail of the 14th instant instructions may be sent to the Commissariat Officers at Aden to use their utmost endeavours in conjunction with the Political and Military Authorities to ensure an equal supply of sweet water to the Troops which shall not be less than three gallons per diem per fighting man making up the deficiency whenever found to be necessary by a draft upon the Wells of Bir Ahmed.
>
> "A ration of one gallon per diem is now served out to the European Troops in Garrison at Aden, this may be increased at once to two gallons per diem if deemed desirable by the Military Authorities.
>
> "The Military Board understands that the present measure is merely temporary and as an expedient to obviate the risk of suffering among the Troops. The whole subject is undergoing deliberate investigation."

So I should think, poor wretches. What must Aden have been like on one gallon of drinking water a day! But if you had been Assistant Commissary-General at Aden how much would you have issued, two or three gallons? How "Finance" (yesterday or to-day) must have rubbed their hands over that letter, but perhaps they drafted it. To-day we have station boards to increase the allowance of water for a battalion from, say, ninety to one hundred and twenty thousand gallons—and yet the 1850s were the "good old days." Anyway the troops were more or less all right; but what about the unfortunate followers who worked all through the heat of the day? They were surreptitiously given the same allowance until hard-hearted Audit stopped it which resulted in a truly pathetic appeal from the officers in Aden to Government. Government, so like them, agreed to give the followers an allowance of water but, as no sanction was (or is) given without some qualification, the allowance was restricted to those drawing over five and under twenty rupees a month. How the unfortunate men who drew less than that could exist is not easy to understand. Further, as most of the followers got an expatriation allowance,

they nearly all drew a few annas over the twenty rupees so the concession was of no practical value at all.

About the only thing the modern visitor looks at in Aden, if he is misguided enough to go on shore at all, is the "Tanks" and it is interesting to find a letter dated the 27th of February 1855 forwarding a "statement of the quantity of water obtained after the fall of rain in October last from two out of the three old Arab tanks sanctioned to be repaired in the accompaniment to your memorandum of the 27th March, No. 2887 of 1854." So now we know when they really were dug out and repaired. The "estimated" saving in that year of a shower was Rs. 3,213-10-8; pretty close estimating!

In those little modern blue books that we all know so well, examiners sometimes graciously say that the knowledge of geography by officers shows some slight improvement. But it seems that here at least we can show very considerable progress as witness a minor tragedy of 1856. In August of that year there was a serious famine in an unheard of place called the Laccadive Islands. The Hon'ble Court of Directors told Bombay to send them 2,10,000 lbs. of rice immediately. So the contractor in Bombay was called upon to supply the rice but he demurred at being given only his contract rate as the market price had risen greatly and he, after all, could hardly be expected to accept liability for some unknown islands. So the matter was referred to the Hon'ble Company's Solicitor. Mr. Bickersteth had not the vaguest idea where these Laccadives were and gave as his legal opinion "that the contractor is not bound to supply it, as there is no obligation for the East India Co. to provide for the relief of famine in countries not under their jurisdiction." The "Collector of Canara" heard of this and was most indignant that his charges (which he'd probably never seen) should be removed both from his responsibility and the future mighty Indian Empire by the mere ignorance of a barrister. So Mr. Bickersteth was "put wise," but would he give in as regards the contractor being liable? Not he, for, so like his kind to-day, he wrote, "Assuming however, . . . that the rice sent to the Laccadive Islands was intended for the relief of an apprehended (*sic*) famine among the inhabitants of those islands and not for the ordinary purposes of the East India Company, I am still of opinion that the Grain Contractor should not be required to make the supply under his contract."

And so, whether we consider Government, civilian, lawyer or soldier, it seems quite true that nothing "alters in any one's trade."

AMERICAN BAIT CASTING FOR INDIAN STREAMS

By Lieut. C. W. W. S. Conway.

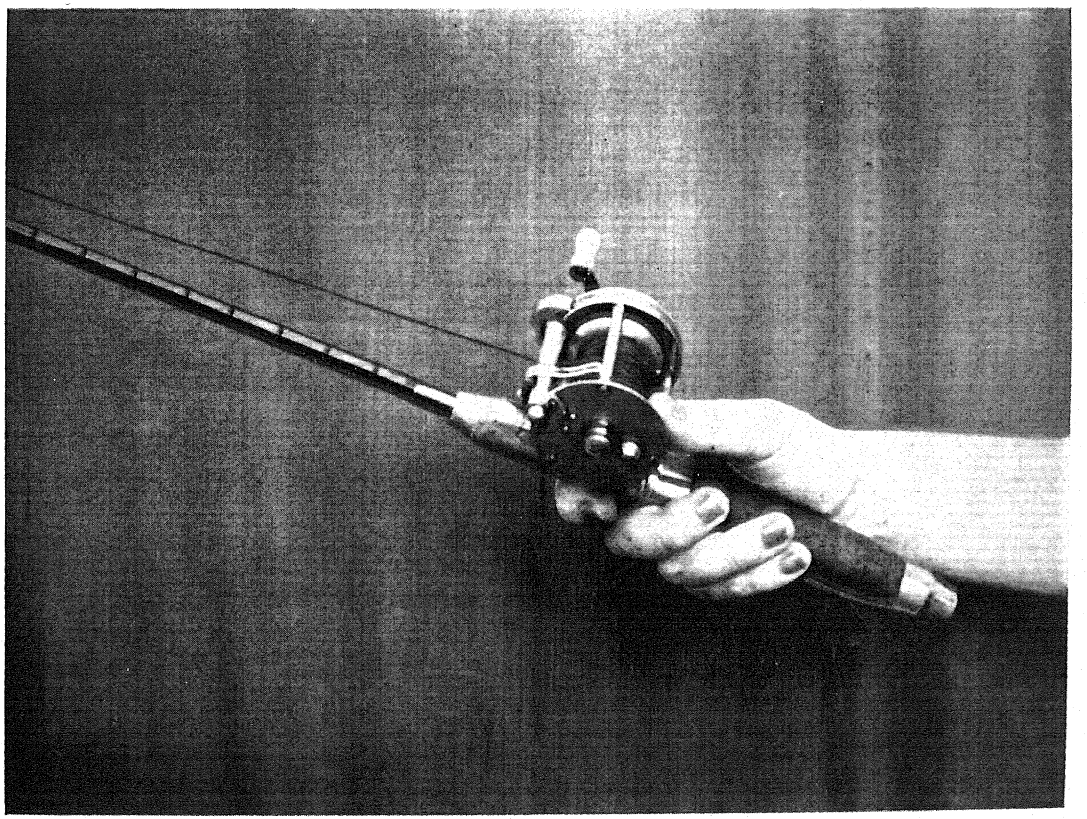
Fishing as an absorbing pastime ranks second to none with its devotees. Unlike others, however, it does not depend on expertness alone. Yet, fishing possibilities are so limitless that a lifetime of application will not exhaust them. Naturally the pleasure derived from fishing is primarily dependent upon successful results. To obtain these results the proper tools are necessary. It is with the intention of bringing to the notice of anglers a little known method of taking the game mahseer, be he a gallant pounder or a forty-pound monster, that I set out to write these notes.

For some quarter of a century the use of the heavy two-handed spinning rod has been superseded in America by the short bait-caster and level wind multiplying reel, and it is of this combination I write.

The reel is a multiplier, having a ratio of four to one, thus ensuring a rapid line recovery. There is no clutch in the reel, and in this respect the system differs from the modern single-handed thread-line fishing. Thumb-pressure on the reel is all that is relied upon for braking purposes. A light adjustable check provides a safeguard against over-runs. A typical example of such a reel is the Pfleuger "Akron" or "Summit." There are, however, a great number of this type of reel on the market both by English and American makers. The illustration shows the method of holding the rod and reel and also the method of braking with the thumb.

The line is about ten to eighteen pounds breaking strain and should be hard-plaited to avoid stretch. To test it before fishing, tie one end to a stake and hold it taut; then strike the line hard with the bottom joint of the rod when it should be found impossible to effect a breakage.

The rod for India should be about five feet in length, stiff and made of tubular steel. These rods are very inexpensive and I advise buying two at a time. They are very cheap, but once bent are not repairable.



PFLEUGER AKRON Reel. The illustration shows the method of braking the reel with the thumb when casting or playing a fish.

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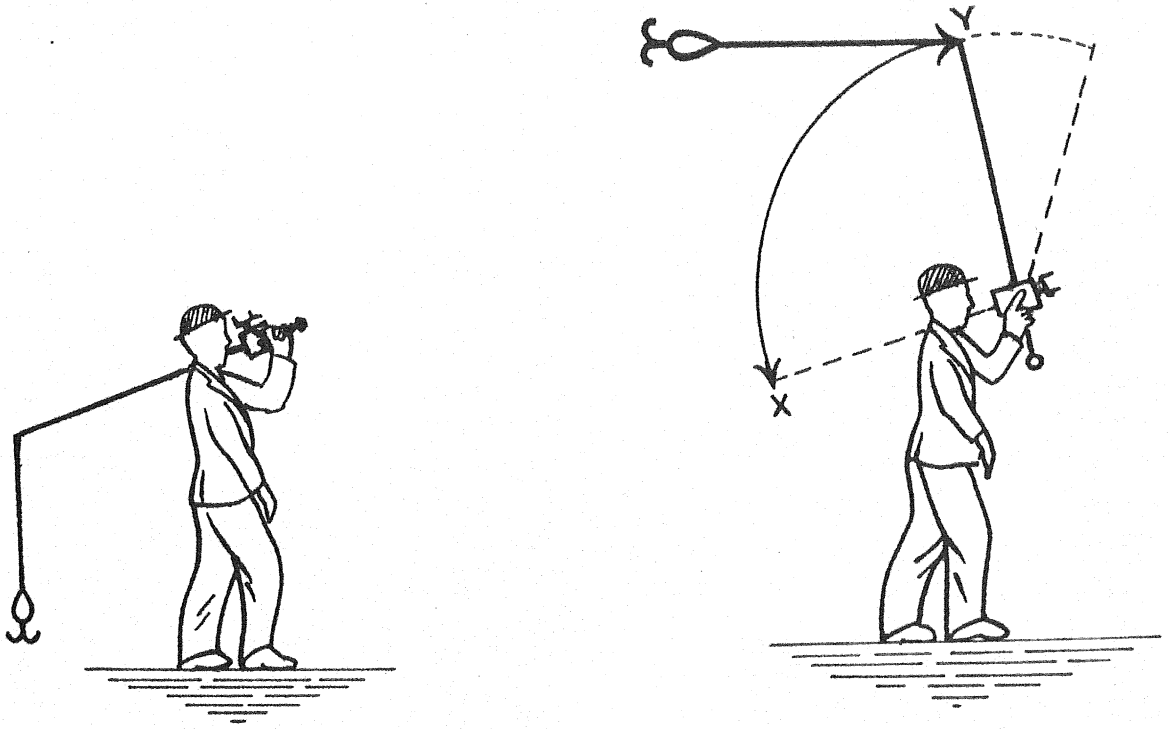


Figure "A"

Casting with the short rod. First diagram shows the position at the start of the cast. Second diagram shows the completed cast; the **thick** line xy representing the power stroke,

Having now described the essential equipment of the angler I will proceed with its application. First to cast. There are two main methods, the overhead and the side cast. The side cast is a single-handed edition of the normal method of spinning cast with the old two-handed rod, and as such does not merit any description to itself.

The overhead cast, however, is peculiar to this type of tackle. A written description of how to cast must perforce be very incomplete, and I therefore crave indulgence if my explanation falls short of complete clarity. I do, however, wish to impress upon you that the whole matter is not nearly so difficult as it appears; try it out for yourself and see!

The photograph shows the method of braking the reel with the thumb. To make a cast put the rod over your shoulder and then by a *wrist* movement bring the rod forward smartly, at the same time releasing the thumb-pressure. The rod point must not pass beyond 10° from the vertical. Try to throw the bait as high as possible in the air; this will obviate a tendency to slam it down in front of your feet. If you follow the above instructions correctly, the bait will describe a parabolic trajectory through the air. When the maximum height of the curve is obtained and the bait begins to drop, apply a little light pressure with the thumb to prevent over-running. In Diagram "A," the *power*-stroke of the cast is shown by the thick line X...Y; the rest is a follow-through. Figure "B" shows the cast from start to finish.

Great strength does not return the penny in casting. A smart power-stroke with the correct follow-through achieves the object. After a little practice, distances up to 50 yards are easily obtained.

Accuracy is obtained through casting in this manner, as only two dimensions are concerned, whereas with the "side cast" the whole operation concerns three dimensions.

Fix your eye on the chosen spot and simply throw the bait at it exactly as if you were throwing a stone. The movement is so natural that if the performer has anything of a "good eye," the chances are that the first effort will not be far off the target.

As in all kinds of fishing, get to know your gear and, at the start, anyway, practise casting on dry land until a fair amount of confidence is achieved.

From the foregoing you will appreciate that casting is possible in the most confined space, an advantage which cannot be overstressed when fishing overgrown jungle streams. After a little

practice the fisher learns to cast in the most uncompromising attitudes. In passing, I may say I have actually killed a fish myself whilst lying full length on a rock in mid-stream.

Exponents of the older methods often argue that it is impossible to follow a running fish with a short American rod if obstacles such as bushes of any size are to be negotiated. Nothing is further from the truth. Before starting to condemn the American tackle, just remember there is no appreciable bend to a short five-foot rod. You may make full use of its entire length and you can, if necessary, hold it high above your head in one hand. The effective length of the ten or twelve-foot rod is limited, in surmounting an obstacle by the bend on the top. In the practice of fishing with the short rod, it is amazing what high obstructions can be passed with ease.

I need hardly point out that a single-handed rod is far less tiring than a two-handed one. Further, a two-piece five-foot rod can be easily carried in a suit-case or the ubiquitous bedding roll together with its complementary tackle; and being of very robust construction fear of damage may be totally disregarded.

And now of baits. In America the bait in general use is a wooden plug so made that it dives and darts about in the water offering a very real and life-like representation of a small fish. These plug baits are now stocked by the leading tackle dealers in India, but at so prohibitive a price that the great army of poor fishermen take fright and are put down. I have much sympathy with the tackle dealer, having as he does to contend with an immense and unfair customs duty on his imports. I therefore propose to describe a simple form of plug bait which can easily be made by the angler if he is reasonably clever with his hands. Perhaps I may persuade a fishing tackle dealer to take up the matter and put a plug bait on the market at a reasonable price.

To make the plug: take a well-seasoned piece of wood and fashion it by means of knife, saw and sand-paper into the following cigar-like shape. So far, so good. Now take a round piece of wood of about half-an-inch in diameter and around it wrap some coarse sand-paper. Now file away on the line A...A until a groove is worn of about three-eighths of an inch depth to the line A...X. The line A...X should now be at an angle of 45° to the main axis of the plug.

Next item, "colouring the brute." This is a matter for the angler to decide in the light of his experience on his chosen river.

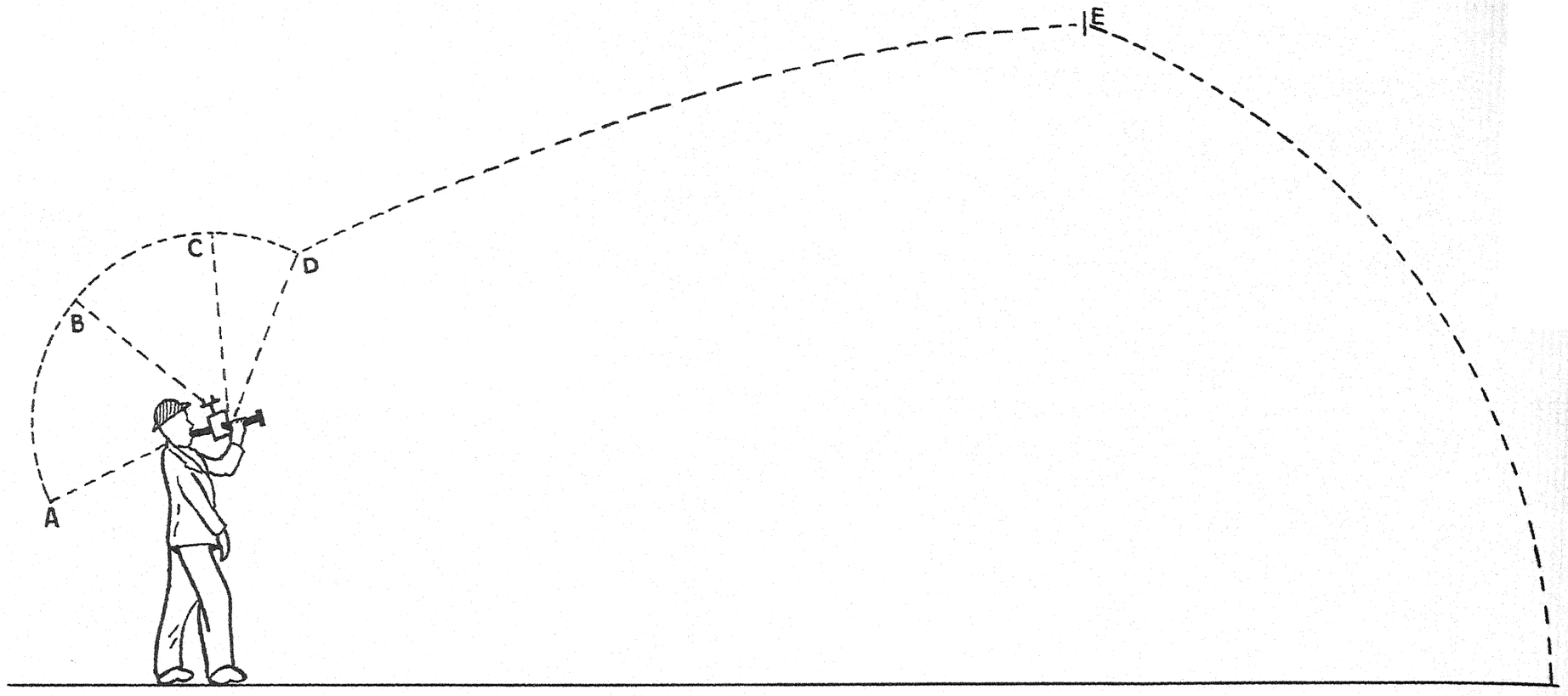
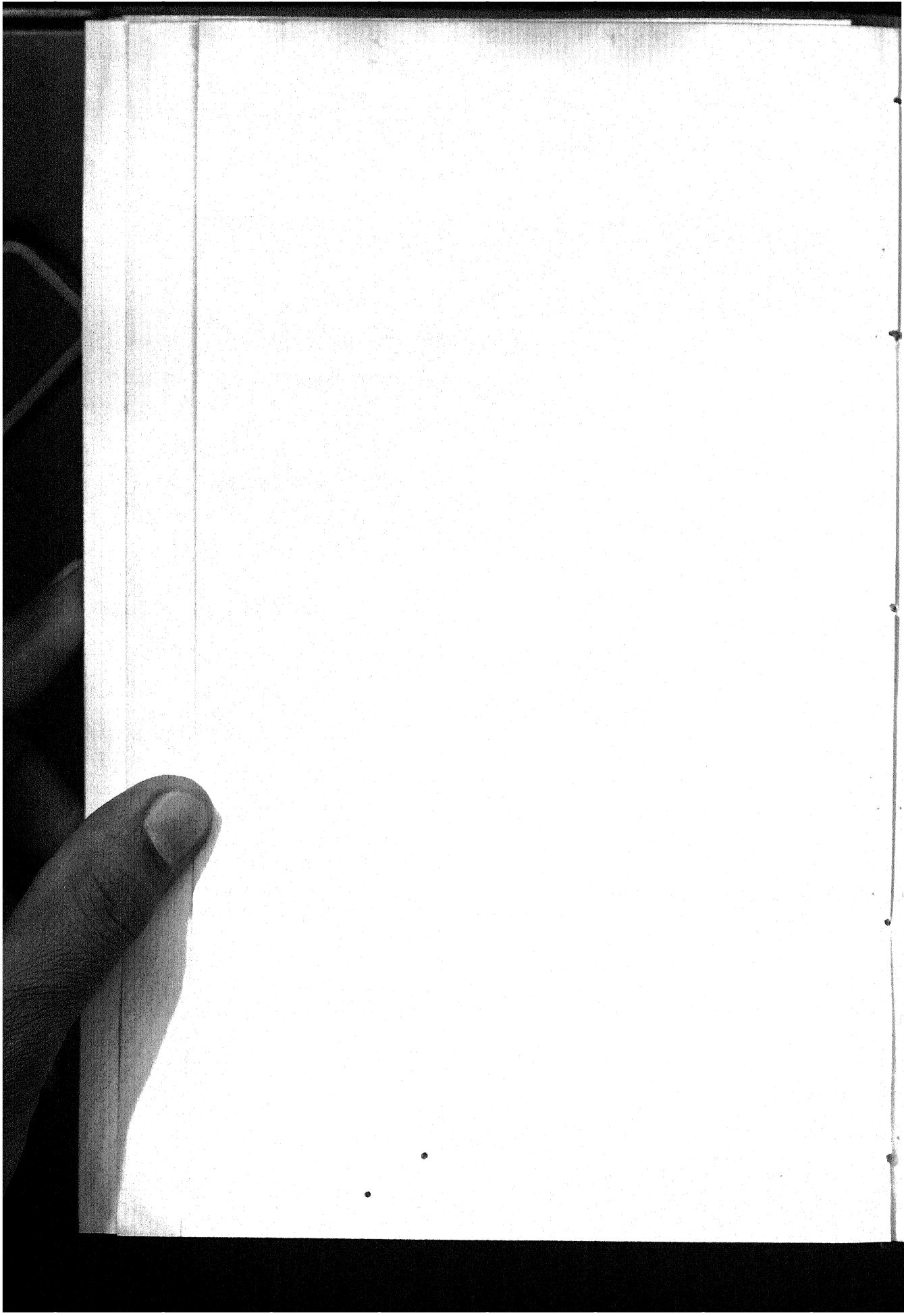


Figure "B"

The complete cast with the short rod.

(a) Start of the cast.
(b) Release thumb pressure here.
(c) Power stroke ends here.
(d) Follow through not further than this point.
(e) When the bait reaches this point, thumb pressure on the reel only a touch, as the bait begins to fall.



Personally, I find that the following combinations of colour kill in most waters:

(*a*) Red back and white belly.
(*b*) Blue back and white belly.
(*c*) Green back and white belly with red stripe down each side.

Use a good quality cellulose enamel giving a glossy surface, so that the most advantage of light refraction is taken.

Finally to add the hooks and attachment for fastening the trace, use the smallest size of screw-eyes. Fix one in the centre and one-third of the way from the top of the groove and another on the bottom of the plug as shown in the diagram. Two trebles should now be whipped to some cable wire and attached by means of a Hardy Link to the bottom screw-eye. The plug bait is now complete.

The reader will notice that I never recommend the use of a lead. With the tackle I describe it is quite unnecessary. Leads can only be likened to the man who walks in front of a steam roller with a red flag, to advertise its presence to all and sundry. With plug baits the action of reeling these in sends them below the surface. With other baits fished upstream their own weight is quite sufficient.

Of spoons to use with the bait-casting outfit there is little to say. It is a matter for the angler to decide himself. I would suggest the following as a nucleus:

Two of one inch.
Two of one and three-quarter inch.
One large two-and-a-half or three-inch spoon of metal.

They cover the whole range of artificial "spinning baits," in spite of the attractive illustrations in dealers' catalogues of legions of patent spinners and devons. These are more often than not more successful in catching the eye (and pocket) of the angler than the fish. Remember, spoons can be made by any bazaar mistri for a few annas.

Finally comes the question of spinning the natural bait. Many expert mahseer fishermen aver that this is the bait *par excellence*. The mount for natural bait is easily made by any fisherman neat with his hands and with a little time to spare—and that is true of nearly all of us. Just whip a hook to some two inches of gut substitute. An Allcocks No. 1 Model perfect hook does very well. Make a loop of some one-and-a-half-inch diameter. Be careful that the knots and whipping are coated with some waterproof varnish to prevent slipping. A good

varnish may be made by dissolving celluloid in amyl acetate or by using that most excellent preparation "Rawlplug Durofix."

The other item required for this tackle is a small barrel lead with a wire eye. To mount the dead bait first put the hook through the side of the dead bait (chilwa are best), then pass the looped end of the gut through the gills and out of the mouth of the bait on the same side as the hook. Next pass the looped end of the gut back through the mouth and out of the gills on the other side; finally pass the loop of gut over the bait's tail and up the body, pulling on the gut that protrudes from the chilwa's mouth. It will now be found that the head of the chilwa is securely noosed and that a long loop of gut is standing out of the mouth of the bait. This loop is now passed through the eye on the barrel lead and the lead pushed into the gullet of the bait. A few turns of soft wire or thread round the gut near the bait's mouth keeps the whole gadget neat. Finally attach the whole by means of the loop to the eye of a swivel, which can in turn be attached to the trace. A glance at diagram "C" will make it all quite clear.

As chilwa are not always to hand when the angler is suddenly offered fishing possibilities, a few words on how to preserve one's own baits will not come amiss. These small fish may be preserved for an indefinite period in a formalin solution of one part formalin to twenty parts of water. Put the baits in an air-tight jar or bottle for a fortnight with the solution; then take them out, wash them and put them in the following solution:

Formalin	...	½ ounce.
Glycerine	...	4 ounces.
Pure water	...	20 ounces.

In this they may be left indefinitely.

If a golden red colour is desired for the baits add a little *red ink*. This golden colour often has a most tonic effect on non-taking fish.

A gaff of some sort is useful though not essential, as mahseer may normally be beached by walking backwards up the bank and bringing them onto a shingle or sand-bank. The gaff I suggest is made up by whipping a No. 5/0 hook onto a 4-foot length of ringal bamboo, the other end being shod with a small representation of a boat-hook. This provides the angler with both a gaff and wading stick. It is very useful also for freeing tackle caught up in snags.

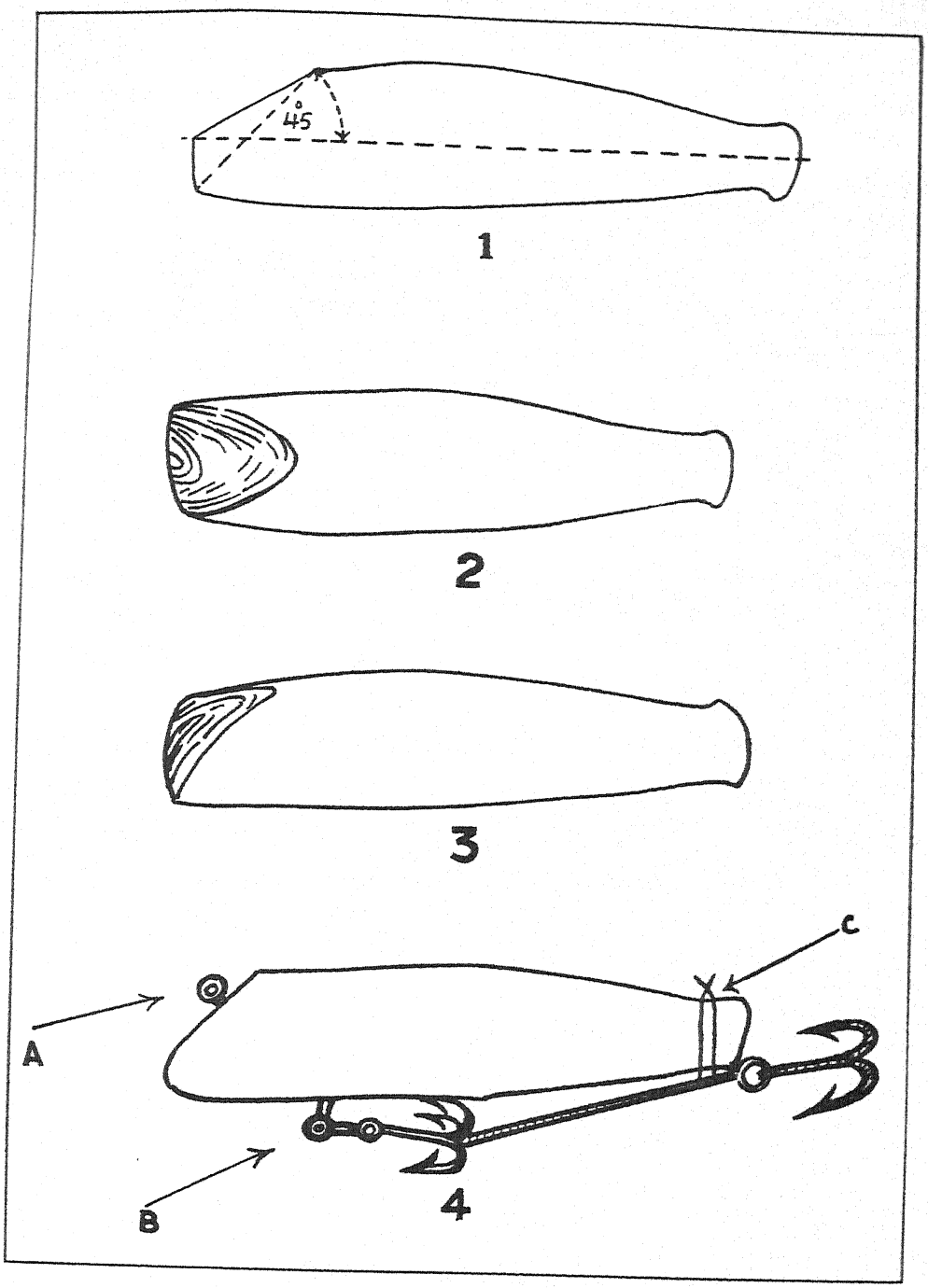
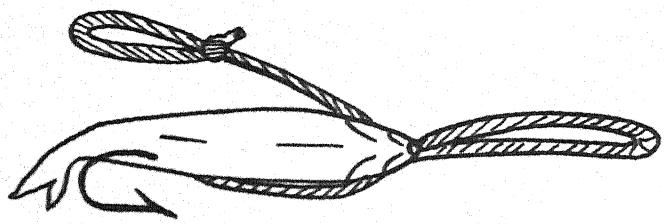


Figure "C"

1. First stage.—Wood shaped.
2. Second stage.—Top view, showing the groove.
3. Second stage.—Side view.
4. The finished Plug Bait.

"A" Screw eye in place.
"B" Screw eye for hook mounting.
"C" Bind the hooks here with a couple of strands of thread to keep them in place when casting.

The Plug Bait is shown natural size.





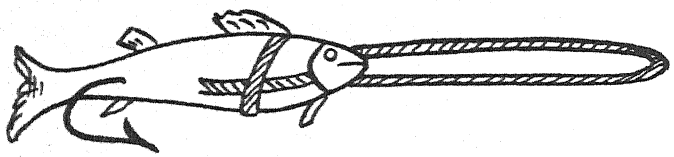


Diagram "D"

A simple mount for spinning dead bait.

1. First stage of mounting the chilwa.
2. Small barrel lead with wire eye.
3. The dead bait mounted.

The necessities of tackle are now described. With this tackle an angler may attack any hill stream with equanimity, and in the certain knowledge that he has in his hands tackle capable of killing any fish up to the 50-lb. limit. The whole of it takes up no room and is easily stowed anywhere.

In conclusion, I add a few notes on how to fish a stream. First forget your ideas of fishing at home. The fish population of an Indian stream is at least 200 per cent. greater than in most European waters. Therefore, reduce wading to a minimum, for every time you take a step in wading your presence is advertised by vibration to the fish in your immediate vicinity who will rush upstream and by their obvious hurry advertise the presence of danger to the whole water population.

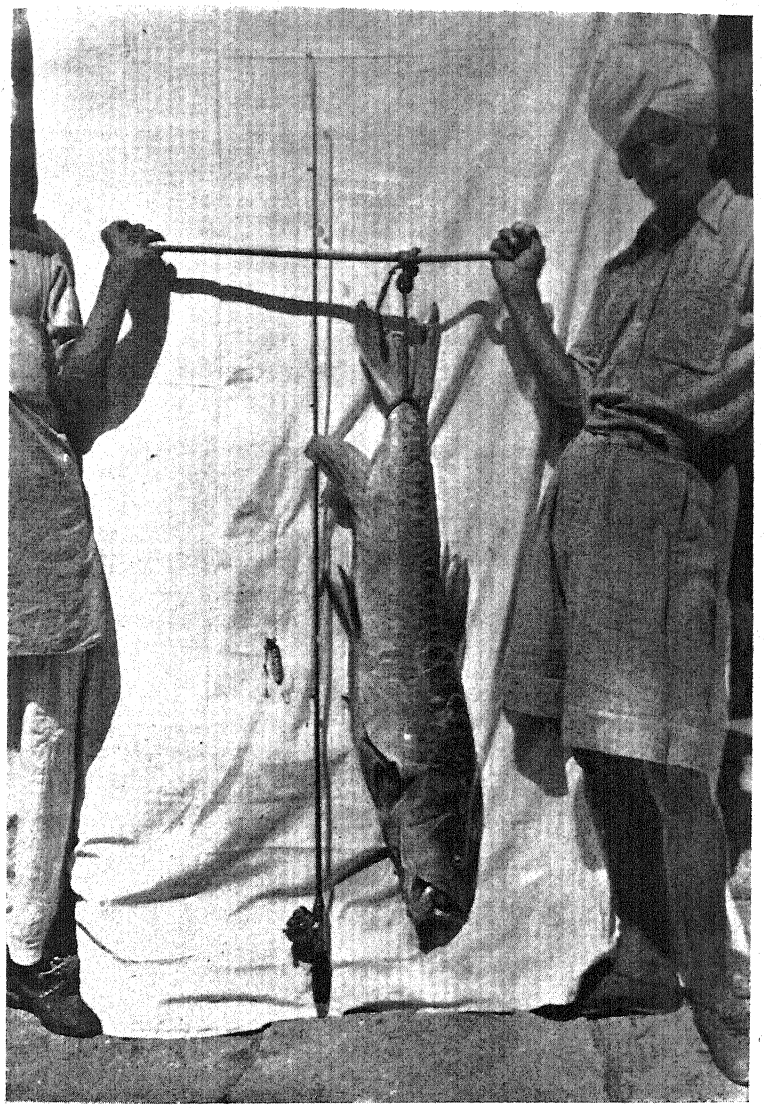
Secondly, as far as possible cast up or up and across stream. The mahseer is possessed of good eyesight and does not fail to use it. All fish must lie with the heads upstream in order that their gills may function properly. If you approach from the rear, therefore, the likelihood of them seeing you is reduced to a minimum, and the tendency is for the bait to be pulled into the back corner of the fish's mouth, when he will have the maximum difficulty in ejecting it.

It would be wrong to leave this important topic without referring to the matter of light on one's bait. How often does one meet a complaining angler on a magnificent stretch of water "having toiled all day, caught nothing." The reason is not far to seek; though he has presented his bait to fish they have not seen it. When the bait is directly between the rays of light and the fish's eye, it will present the maximum opacity and so on, until we get to the other end of the scale when it is practically invisible.

Having hooked your fish, put a slight strain on him and let him run. He will panic and expend his energy, and soon when his rushes get shorter you may exert more strain on him, eventually bringing him to the gaff. Always try to get below your fish, as the force of the current is then in your favour. On the other hand if he is below you he has the advantage of current and his full weight. At times it is necessary to be rough on a fish; then, believe me, the short five-foot rod will surprise you with its power. Don't use force, however, until persuasion has failed. Fishing is described as the "gentle art;" the use of force is therefore an admittance of incompetence.

The cost of the tackle I have described is very small when compared to the enormous sums that can be expended on this item. My own tackle, new and in all ways complete, cost me but Rs. 50. The small bulk and robust construction make it immensely suitable to take on tour or on a shooting trip, when a day's fishing is a very happy interlude.

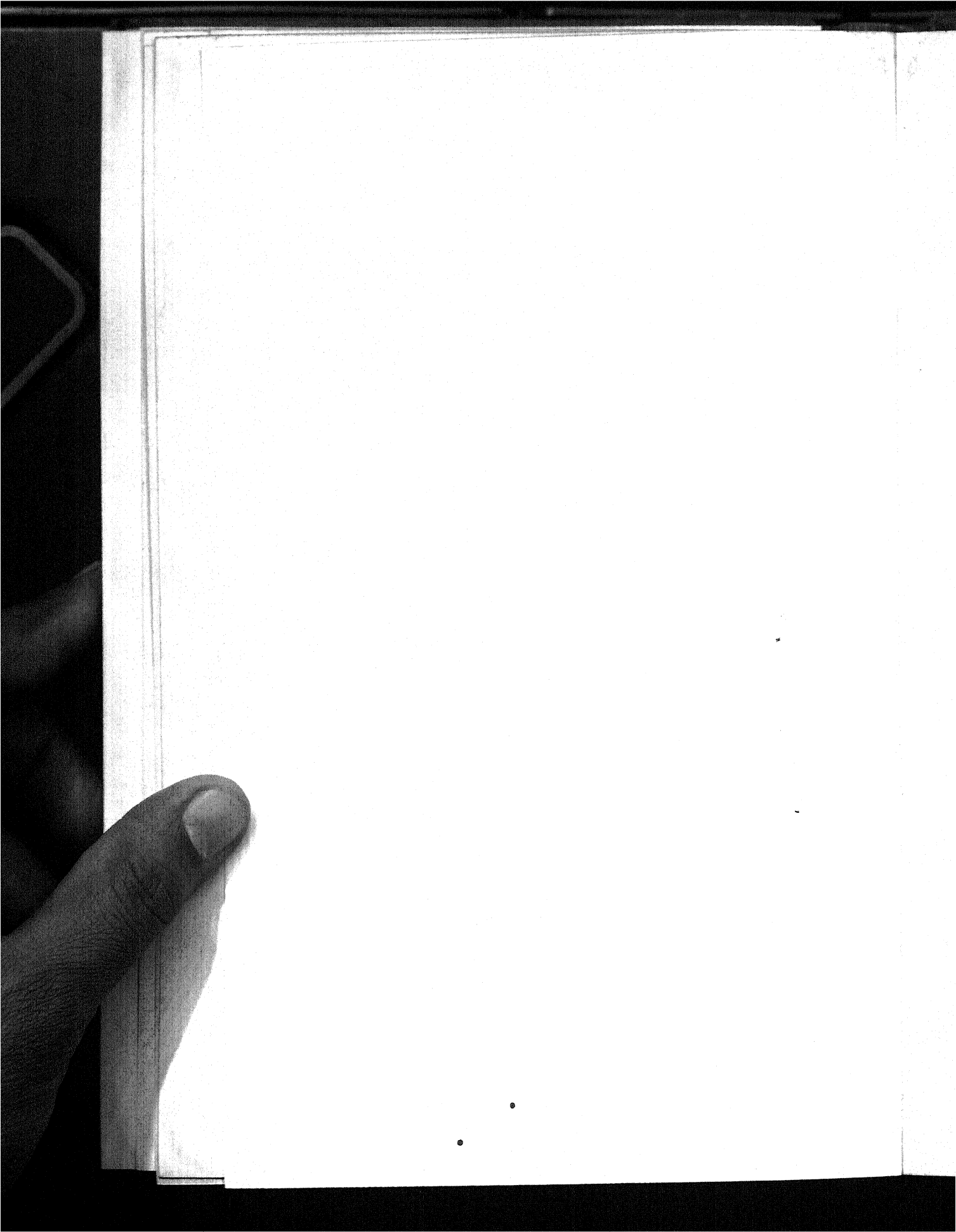
Apart from all other considerations, it does catch *more fish*. Be modern and use the latest tackle. Fishing tackle dealers will of course often advise otherwise, but consider the difference in cost; they naturally prefer the extra profit of the more expensive antiquated type of tackle and in these days of universal financial stringency it is difficult enough to sell shikar goods anyway!



The proof of the pudding. A thirty-pound mahseer caught with the methods which are described in this article.

Photograph by: C. W. W. S. CONWAY,

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MISCELLANEOUS SERVICE NOTES

ARMY NOTES

Great Britain

The 1939 Estimates

The totals of the estimates have been referred to elsewhere. The net increase over last year's figures is £41,655,000. A satisfactory feature is the result which the various measures to improve conditions of service in the Regular Army has had upon recruiting. The anticipated intake of recruits during the year 1938-39 is 40,000 compared with 29,482 in the previous year. The anticipated shortage below establishment is 900 officers and 16,000 other ranks as against 1,200 officers and 24,000 other ranks on 31st March 1938.

The Officers Emergency Reserves

Applications for the five thousand vacancies in this reserve which was referred to in our last number amounted to over twenty thousand.

The Territorial Army

Increases of pay—except for junior captains whose pay will be temporarily reduced—have been announced. The tenure of command has been reduced to three years except in special cases.

A scheme for staff training has also been announced. Each year fifty selected captains or senior subalterns will undergo a nine month's correspondence course under the direction of the Commandant of the Staff College, Camberly, working through the staffs of Commands. This will be followed by a fortnight's course at Camberly.

India

Defence Co-ordination

A Secretary for the Co-ordination of Defence has been added to the Governor-General's Secretariat. He will co-ordinate the work of the several departments and Provincial Governments and prepare the voluminous draft regulations which are necessary to enable the country to pass from a peace to a war footing.

The Army in India

Pay of British Service Officers

Provisional rates of pay for British Service Officers on the Indian establishment have been approved by the Secretary of

State for India. The new rates of pay, inclusive of lodging allowance, are compared with existing rates in the table below.

The pay received by an officer on 20th December 1938 will not be reduced as long as he continues to hold the rank or appointment which he then held, nor will any retrospective reductions be made for the period from 1st August 1938 to 20th December 1938.

	Old Rates.		New Rates.	
	Single.	*Married.*	*Single.*	*Married.*
Lieutenant-Colonel ...	1,300	1,450	1,300	1,450
Major—				
after 22 years' service ...	...	...	1,090	1,235
after 5 years as such ...	1,090	1,235	...	...
average 20 years' service	965	1,105	...	...
after 17 years' service ...	...	...	965	1,105
Captain—				
after 15 years' service ...	810	955	810	955
after 14 years' service ...	...	...	800	935
after 11 years' service ...	...	...	680	825
average 10 years' service	680	825	...	...
after 8 years' service ...	...	...	590	725
Lieutenant—				
after 7 years' service ...	530	...	...	...
after 6 years' service ...	...	...	505	...
Lieutenant ...	460	...	460	...
2nd Lieutenant ...	405	...	405	...

Promotion of Indian Army Officers

With effect from 1st October 1938 the lengths of service regulating promotion of qualified and recommended officers of the Indian Army, excluding the Indian Medical Service, are as follows, in conformity with those of British Service Officers:

2nd Lieutenant to Lieutenant	... 2¼ years.
Lieutenant to Captain	... 8 years.
Captain to Major	... 17 years.

The dates for passing for promotion are as follows:

If due to be promoted on the old time scale before 16th October 1939: in 1939.

If due to be promoted on the old time scale before 1st August 1940: at any time before promotion would have taken place on the old time scale.

Officers who fail to pass within these dates will be given one more year in which to pass before being retired.

Officers whose promotion has already been retarded through failure to pass, but who pass within twelve months of the date by which they should have passed, will be placed for seniority in the position in the gradation list which they would have occupied if the old rules were still in force.

Pay

K.C.O.s and K.C.I.O.s will receive the same rates of pay, the dates of increment of Indian Army allowance remaining unchanged. As an interim measure, captains promoted under the nine-year rule will receive an additional Rs. 30 per month from the beginning of their 11th year of service and those promoted under the new rules an additional Rs. 55 per month on completing nine years' service.

Artillery

The 6th Field Artillery Regiment, which has for some time been below strength owing to the suspension of "holding," has been returned to the United Kingdom without replacement, thus reducing the number of field artillery regiments in India from 10 to 9.

Language Examinations

Changes have been made in the syllabus for Urdu examinations. The reading and translation of a manuscript is no longer required in the oral part of the examinations and a revised syllabus will be introduced for all examinations from October of this year. Details are given in India Army Order 82 of 1939.

Mechanical Transport

In connection with the reorganisation of the Western Command last autumn four mechanical transport sections were disbanded. In continuation of this reorganisation, seven subsidised mechanical transport sections have been raised, three at Quetta and one each at Bannu, Fort Sandeman, Pathankot and Peshawar.

R. A. F. Notes

Organisation and Administration

With effect from the 27th December 1938, Headquarters, Royal Air Force in India, became Headquarters, Air Forces in India.

31 (A. C.) Squadron at Ambala is undergoing conversion training on Valentia Bomber Transport aircraft.

On 28th February 1939, 28 (A. C.) Squadron moved permanently from Ambala to Kohat and on 1st March 1939, 60 ("B") Squadron from Kohat moved to Ambala.

Operations

Considerable operational flying has been carried out during the past months. Detachments of 11 and 39 Bomber and 20 and and 28 Army Co-operation Squadrons have operated from Miranshah, while 60 and 27 Bomber Squadrons at Kohat and the Bomber Transport Flight at Risalpur have operated from their home stations both by day and night.

Independent air operations have consisted of proscription of certain areas of the Madda Khel, Tori Khel, Shabi Khel and Bahlozai Mahsuds consequent upon offences against the Government. Combined land and air operations have taken the form of two columns marching through the Khaisora valley and one in the area of Sham Plain and Shaktu, in each case with support. Co-operation with Tochi and South Waziristan Scout operation in Waziristan has been carried out on many occasions and sorties have been provided frequently over Frontier constabulary in pursuit of raiding gangs in the Bain, Pezu, Bannu and Dera Ismail Khan areas. Road sorties have been carried out regularly in support of convoys and road protection troops.

A notable example of the use of close support occurred when an aircraft of 20 (A. C.) Squadron took off during the night of 5/6th February from Miranshah and effectively silenced a gun with which tribesmen were attacking the Scout Post at Datta Khel.

Conditions of low cloud, rain and snowstorms throughout the Frontier have been prevalent during February and March.

General Interest

Members of the Chatfield Committee were flown over Waziristan and to Delhi and Calcutta during the course of their tour.

A Blenheim aircraft has recently arrived in India and is now at Ambala where it is undergoing trials.

LETTERS TO THE EDITORS

SIR,

Your correspondent, "Edward Ramel," asks me to tell him "how to give all-round and continuous protection to a marching column in typical frontier country. The transport would, of course, be mixed pack and draught." Being on my way home on leave I have not my original article with me, but I can say this at least for certain that I cannot answer his question in general terms and I am sorry that I cannot do so.

A "marching column" sounds rather like a force that expects to do seven or eight, perhaps more, miles in the day. If the column he suggests were opposed in any strength it would never do the distance, so it is of no use to set out in the first instance with the rigid determination to do it in one day. Frontier history has often warned us against such plans.

I think "Edward Ramel" envisages a column whose object is to get from "A" to "B" in a given time in a hostile country by piquetting its way forward, whereas the column that I envisage is one that sets out to defeat any enemy between "A" and "B," reaching "B" in a time dependent on the extent of its success in battle, and making the protection of its transport an entirely secondary thing which may indeed not be necessary at all except for the local protection afforded by baggage guards or escort.

As far as I can learn of the very successful operations in 1935 in the Mohmand country, this latter attitude was the one adopted right up to the taking of Nahakki, for the enemy was in strength in the field most of the time. The fact that a permanent L. of C. had to be established did not affect the primary object—to subdue the enemy.

Brigadier Maynard, in 1937, "unglued" the situation about Dosalli by taking Tocoi wide by night and thereby turning the enemy's positions covering the Sham Plain and ensuring a free passage up the valley to that plain.

I feel that "Edward Ramel" and I have encroached enough on your space; but you will, I hope, allow me to stress just three things germane to his query, and they are:

Surprise, and again surprise, is the most certain form of security, for by it one soon paralyses one's enemy physically and mentally. Show him only what you wish him to see.

Our chief concern must be to eliminate entirely, or almost entirely, from our fighting columns those pack and draught mules of which "Edward Ramel" speaks, and anything else that ties infantry to fixed routes. This is no dream, it can be done—some of the means to this end are air supply, portable infantry mortars, and the use of armed porters. There are others.

An operation of this sort is mainly an infantry matter. We must, therefore, whenever we may need to develop infantry fire, try to bring our infantry tactics as near as possible to those of modern war where fire is so vitally important. We can only do this by manœuvre. Often our infantry may have to bivouac on the hills rather than camp in the nullah.

Your correspondent has raised a quesion on which a volume could well be written, so he must forgive me for not pursuing the matter further.

I very much appreciate the interest that both he and "Punjabi" have taken in the various points raised in my original nightmare.

I am, Sir,
Yours, etc.,
"AUSPEX."

THE INDIA RIFLE CLUB

SIR,

The India Rifle Club has, since 1935, been responsible for the organisation and running of the teams representing India at the meetings of the National Rifle Association held at Bisley Camp annually. During this period the team has won the Kolhapur Cup for India with the highest score on record, has twice finished third in this contest, and once third in the long-range Mackinnon International Match.

In 1938, Field-Marshal Lord Birdwood and Field-Marshal Sir Philip Chetwode both specially made the journey to Bisley Camp in order to see the team representing India compete in the international contest for the Kolhapur Cup, in which competition India finished third to Canada and the Mother Country. It was only through a strained ankle that another Vice-President, Field-Marshal Sir Claud Jacob, who has also held the position of Commander-in-Chief in India, could not be present as well.

India cannot afford to send a pre-selected team to Bisley. The teams representing this country are consequently composed of those individuals of the Indian Services who happen to be on leave, augmented by others who have retired or are otherwise qualified, and who reside in Great Britain. As these scratch teams have to compete against the pick of the Mother Country, consisting of about a thousand of the best shots of England, Scotland, Ireland and Wales, and the pre-selected teams from the full strength of Canada, Australia, South Africa and other parts of the Empire, the results obtained by the Club on behalf of India are deserving of praise.

In addition to these team successes, Havildar Gurdas Singh, of the 2nd Bn. 15th Punjab Regiment, who did so well at the Meerut Rifle meeting early this year with both rifle and revolver, shot at Bisley in 1937. He was the first Indian soldier to represent the Army in India at Bisley, and could no doubt bear out the statement that the chief object of the Club is to be of real assistance to those of the Army in India visiting the National Rifle Meeting.

Members of the Club have also shot in teams representing the Regular Army, the Royal Air Force and various Home Counties; have won the Silver Medal for the highest score in the second stage of the King's Prize; the Bronze Cross for the highest score in the first stage of the St. George's; the All-comers aggregate; the Daily Telegraph Cup; the Match Rifle Tyro Aggregate; the Duke of Cambridge; the Abert; the *N. R. A. Journal; the Daily Mail;* and several King's Hundred badges. Last year, Captain H. P. T. Lattey, M.B.E., late 7th Gurkha Rifles, won the much sought after combined golf and shooting trophy with the record score for the competition.

India had, in 1938, the distinction of having as a member of her team the first lady who has ever taken part in the Kolhapur Match, Miss Blanche Badcock.

Miss Badcock has also shot twice for India in the long-range Mackinnon International Match, and was one of the three selected to judge the wind for the India team in the Empire Match of 1937, in which Sergeant Bayes, of the 13/18th Hussars, a former King's Medalist in India, made the only "possible" at 900 yards.

In 1938, a start was made on the construction of a headquarters building for the Club at Bisley Camp. So far, the main entrance hall and a very efficient armoury have been completed, thanks to the generous support given to an appeal for funds on behalf of the Club from Lord Birdwood. Residential quarters with kitchens, etc., where the contingent representing India may live together in no less degree of comfort than those of Canada, Australia and other parts of the Empire with whom they have to compete, are an urgent necessity.

The idea prevalent in India that Bisley is a place where people only shoot lying on their backs at long ranges with special rifles is far removed from actual fact There are it is true, such competitions, and they are of the greatest possible utility in developing the rifle and ammunition, but the great majority of competitions at Bisley are shot with the service rifle, to which those serving in India are well accustomed. The use of the aperture sight and sling is readily learned, as may be emphasised by the successes of Sergeant Bayes and Havildar Gurdas Singh. These N.C.O.s had never used a sling, or even seen an aperture sight, until they came to Bisley last year.

For the last two years the Army Rifle Association (India) have held at the Meerut meeting a special competition with aperture sights and slings, as used in the international rifle matches of the Empire at Bisley. This competition has been of the greatest assistance to the Club as providing a means of familiarising those attending the Bisley meeting with these aids to accuracy before they arrive in Great Britain.

We have now serving in India members of the contingent who shot at Bisley this year, and who will gladly furnish any information required. They are:

Major H. Renwick, 3rd Bn. 18th Garhwal Rifles.

Major S. A. Jennison, 8th Punjab Regiment.

Lieutenant N. C. H. Holdich, The Royal Warwickshire Regiment.

Lieutenant S. P. Edmunds, 1st Bn. 5th Punjab Regiment.

Further details about the free importation of aperture sights and about the facilities offered by the Indian Rifle Club may be obtained on application to the Secretary, Army Rifle Association (India), Pachmarhi.

Some eighty units of the Army in India and the depot ship of the Royal Indian Navy are now affiliated to the Club by payment of the subscription of £1 per year. Members of such units have the full and free use of all the resources of the Club whilst in Great Britain.

Individuals of the Army in India, whose units are not affiliated, can join the Club as ordinary members by payment of an annual subscription of five shillings.

Will those who take an interest in rifle shooting, and who desire to compete in the Bisley meeting when on leave in Great Britain, please communicate with the Captain of the India Rifle Club, Bisley Camp, Brookwood, Surrey? Every possible assistance will be given them and any prior information which may be required will be furnished by those at present serving in India whose names have been given in this letter.

Yours, etc.,

H. L. WYNDHAM.

REVIEWS

LORD ROBERTS

By Lieut.-Colonel H. de Watteville, C.B.E.

(*Blackie & Son Ltd.* 5s.)

Colonel de Watteville's biography is based on Lord Roberts' own "Forty-one Years in India," supplemented by numerous recently published letters written by the Field-Marshal during the Indian Mutiny.

Frederick Roberts started his Service career with the advantages of an Eton education and a father, General Abraham Roberts, still holding high rank in India. Against these he had to weigh indifferent health and relatively small private means. From his earliest days he was determined to achieve fame and he set himself to attain what, in those days, were two essentials of success, a reputation as an accomplished horseman and an appointment to the headquarter staff in Simla. To many officers these were, indeed, the only goals of aspiration, but Roberts went further—for he worked diligently and patiently, over a period of years, to master the internal workings of that cumbrous machine which was the Army in India.

The author traces the Field-Marshal's career through the Mutiny, the Bunerwal Campaign of 1863 and years of administrative work in Simla to the Afghan War, from which Roberts emerged with an Empire, as opposed to merely an Indian, reputation, a G.C.B., an autograph letter from the Queen and the thanks of both Houses of Parliament. The forward policy of Lord Lytton is well, if briefly, described as are the vacillation and financial pusillanimity of the Government of India. Success followed success; as Commander-in-Chief first at Madras, then in Simla, in Ireland and South Africa Lord Roberts steadily enhanced his reputation. It was unfortunate, therefore, that he should end his active career at the War Office where he was never truly at home—he had served too long in India for that—where his rightful powers as Commander-in-Chief were denied him and an impractical scheme of army reorganisation had just been launched by the Secretary of State for War, the Hon. St. John Brodrick.

The author winds up with Lord Roberts' campaign for national service, the necessary for which was derided by the politician, mistrusted by a conservative regular army and never properly explained to the people. What Lord Roberts advocated was essentially compulsory home service, service for the defence of Great Britain rather than for offensive purposes overseas. And many of his openly expressed views would not be out of place to-day.

This little book is in no sense a military history; there are no maps and only one short appendix describing the heroism of the small party which went forward to blow in the Kashmir Gate at Delhi. But it is none the worse for that, for the author has made his subject come to life.

Sympathetic at all times, Colonel de Watteville does not hesitate to describe inefficiency where it existed; and we would commend particularly his first chapter portraying, as it does, the outlook of army officers in India in the middle of the 19th century. Are we, relatively, more broadminded to-day?

G. M. S.

IMPERIAL DEFENCE

By Major-General H. Rowan-Robinson, C.B.

(*Frederick Muller.* 10*s.* 6*d.*)

The early part of this book is devoted to consideration of warfare in two dimensions—on land and sea. The author then goes on to discuss the influence on our Imperial strategy of the advent of warfare in two further dimensions—in the air and under the sea—and the changes necessitated by mechanisation and by recent political developments.

The most drastic change recommended is one of control. There are to be two Ministries of Defence, one styled Ministry of War and the other Ministry of Static Defence. Under the former would be grouped four Sub-Ministries—Admiralty, War Office, Air Office and Supply Office, the last named expanding in war to two full Ministries, *viz.*, Munitions and National Service. The point is made that the authorty which gives advice to the Government must also be the executive authority responsible for translating that advice into action. Hence the Ministry of War, with its own General Staff drawn from all three Services, will in future

replace the Committee of Imperial Defence as adviser to the Government on Defence matters.

Having reorganised the head, General Rowan-Robinson proceeds to deal with the limbs. With regard to the Navy, his principal contention is that we are overbuilding in capital ships, which merely put temptation in the way of enemy bombers, whereas to combat the submarine menace to our trade routes the real need is for many more light craft.

In the case of the Air Force, he maintains that we do not pay sufficient attention to the principles of concentration and economy of force. The first essential is "ascendancy in the air" and all effort should be directed to this end before making detachments in support of the Navy and Army. For home defence he is strongly in favour of fighters as a deterrent to enemy raiders rather than bombers for use in counter-attack.

For our existing regular and territorial armies the author would substitute a long-service and a short-service army; the former for India and overseas, the latter to build up reserves for a possible continental commitment. The Territorial Army he would allow gradually to die out except for home defence units.

In the field of anti-aircraft defence the novel suggestion is made that the workers themselves, whether in factories or shops, should furnish the gun crews for their particular locality and that whilst operational control should remain in the hands of the Royal Air Force, command and administration should be exercised by a works manager, a station master, etc., the main object of the scheme being to defeat the present time lag in manning anti-aircraft defences which might prove fatal in the event of a sudden attack.

In the Mediterranean the author admits that the issue is affected by the final result of the war in Spain but, whether or not that country will be hostile, he considers that it is madness to keep a battle fleet in Malta where it could be bombed to destruction in a few hours.

The Mediterranean is a valuable but not a vital channel to the east and we should endeavour to hold it by the operation, from existing bases, of strong flotilla forces consisting of aeroplanes,

destroyers, motor torpedo boats and submarines. An essential condition here is a friendly, peaceful Palestine which General Rowan-Robinson thinks can be ensured only by creating an independent Arab State with suitable "reserved areas" for Jews.

This is a most stimulating book. Every aspect of Imperial Defence has been considered and the various problems have been approached from an independent and original point of view.

The book is very up to date, having been completed just prior to the crisis of September 1938. It should prove of great value not only to military students but to all those interested in one of the most controversial subjects of the day.

C. J. G. D.

MODERN AFGHANISTAN

By Sirdar Ikbal Ali Shah

(Sampson Low, Marston & Co. Ltd. 21s.)

In this book the author presents an interesting account of the development of Afghanistan. The late King Mohamed Nadir Shah Ghazi is, quite rightly, the hero of the story, and the history of his life, which runs through the greater part of the book, is well told. In a very laudable effort to present his country in a favourable light the author's interpretation of some of the facts is somewhat biased. This is a pity as the development of modern Afghanistan is sufficiently remarkable to require no writing up, and by allowing his pen to run away with his enthusiasm for his country the author has reduced the historical value of his book.

Chapter I deals with the geography and ancient history of Afghanistan. It would be very much improved by a map or sketch of the country. Few, if any, Scotsmen will agree with the author's comparison of Scotland and Afghanistan.

In Chapter II the reader will find an interesting and intimate account written by the Amir Abdar Rahman Khan describing his daily routine and system of government. It seems a pity that the author should have found it necessary to choose the present time, when relations between Afghanistan and India are so cordial, to give such a disparaging account of Lord Dufferin's reception of the Amir Abdar Rahman Khan.

Chapters VI to XI give the reasons for the Afghan revolution and the fall of Amanullah; they describe the great difficulties which the late King Mohamed Nadir Shah Ghazi had to overcome to restore peace and how he succeeded in doing so. The final chapter, besides describing the present day Afghanistan, contains an excellent account of the work of the French Archæological Mission in that country. The book is well produced and contains some interesting photographs.

G. L. T.

HISTORY OF THE 1ST BATTALION, 6TH RAJPUTANA RIFLES (WELLESLEY'S)

By Lieutenant-Colonel F. H. James, O.B.E., M.C.

(Gale & Polden, Ltd. £1-0-0.)

In reviewing a regimental history, the reviewer is often faced with the difficulty of telling the truth, without offending the susceptibilities of officers who have spent a great deal of time and trouble on a labour of love.

In the case of this regimental history there is no such difficulty. The author is fortunate in his material, and Wellesley's Rifles in their choice of a chronicler. The early history of the unit, one of the first to be raised on the Bombay establishment, is fascinating reading; and the details of the appalling financial and administrative handicaps under which the Company's troops suffered only serve to accentuate the loyalty and efficiency of both officers and men. The Indian Army to-day may have its grouses, but it has much for which to be thankful.

The record of the unit in more recent times is worthy of its earlier traditions and of the great soldier whose name it bears. Wellesley's Rifles assisted in the suppression of the Indian Mutiny and in the consolidation of India's frontiers; they acquitted themselves gallantly in Mesopotamia, and had the misfortune to be involved in the siege of Kut, where they gave a good account of themselves before the capture of the city; and after the original battalion had passed into captivity, the unit formed to take its place carried on its traditions in Iraq.

The illustrations are numerous and good, and the maps excellent.

The reviewer has only one criticism. He would like to have heard more of the reasons which led to the complete change of class composition between 1892 and 1895. At the commencement of this period the regiment's recruits still came almost entirely from the Bombay Presidency; by its conclusion, the recruiting areas had been transferred to Rajputana and the Punjab. No reasons are given but, curiously enough, the change almost coincided with the selection of the unit for conversion into a rifle regiment—then a signal honour.

D. F. W. W.

THE ELEMENTS OF IMPERIAL DEFENCE (THIRD EDITION)

By A. G. Boycott.

(*Gale & Polden.* 12/6)

This book is a study of the Geographical features, material resources, communications and organisation of the British Empire. It is intended as a text-book or book of reference for officers studying for examinations. The arrangement is logical and the author has collected much useful information for the student. It suffers, as the author admits, the disadvantage of being published at a time when great changes are taking place in the world. It should, however, be more accurate if it is to serve as a reliable book of reference. Burma is quoted as a Province of India, and also as the fourth "Command" of the Army in India; Western Command (now Independent District) being wholly omitted. There are rather too many other such inaccuracies. Mr. Boycott's style does not lend itself to quick reading; his sentences are long and frequently require re-reading. The book is provided with a useful Index. It has not been brought entirely up to date with this new edition, and is consequently incomplete.

The book is very well provided with Maps, which are good.

G. T. W.

"CONVERSATIONS WITH WELLINGTON"

By Philip Henry, Fifth Earl Stanhop

(*Oxford University Press.* 2/-)

This book, first published in 1888, has now been reprinted in the "World's Classics" Series. It records conversations between the author and the Duke extending over a period of twenty years

from 1831. It was Lord Mahon's "anti-social" habit to dictate notes of his conversations with the great man to his wife within a day of their taking place, and an admirable record has been formed.

R. E. H.

THE COMPLETE GUIDE TO MILITARY MAP READING

(Gale & Polden, Ltd. 4s. 6d.)

"The Complete Guide to Military Map Reading" is a useful book for those students who have an instinctive aversion to any official manual.

The author deals concisely and comprehensively with those essentials of map reading which should be known by junior officers. The book is well arranged and contains a number of maps and diagrams the majority of which have been borrowed from "The Manual of Map Reading, Photo Reading and Field Sketching, 1929." Each chapter deals with one particular subject and ends with a series of exercises which, if done conscientiously, should ensure that the reader has a thorough understanding of the subject-matter. But the book contains little that is not equally well explained in "The Manual of Map Reading, Photo-Reading and Field Sketching, 1929" which has a far wider syllabus and costs less.

T. G. D. R.

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EDITORIAL

Great Britain and France have continued their efforts to secure peace in Europe. Great Britain has, with this object, broken with tradition both in foreign and internal policy. President Roosevelt has also taken the initiative in the hope of securing a period of peace. It is impossible to say with certainty what effect these important steps have had or whether the fact that physical war has not yet broken out in Europe can be attributed to action taken by the democracies or to a pause for preparation on the part of the totalitarian states. Herr Hitler's immediate answer to President Roosevelt was given in a speech whose irrelevant points included the repudiation of the Anglo-German naval treaty and of Germany's pact with Poland.

* * * *

Guarantees

It does appear, however, that the guarantees to European states which we have now clearly expressed, together with the steps taken to improve our capacity for implementing them, have had an effect in raising the morale of threatened nations. Our pledge to France in February was no departure from tradition except in so far as it made plain that in these times the fulfilment of obligations can no longer follow rather than precede the national inclination. The pledge was followed by a toning down of Italian references to demands on France; but also by Germany's annexation of the Czech provinces

and of Memel, and the opening of a campaign against Poland in the German press which bore sinister resemblance to the preliminaries of previous acts of aggression. Poland, however, showed no signs of capitulating to threats or of the intention not to resist superior force. Remarkable unity was evidenced in a country of minorities, and the "miracle of German statesmanship" which has driven Great Britain and France into unity appears to have been repeated in Poland. On the 31st March, the Prime Minister, in a statement in the House of Commons, said that the government had offered Poland all the support in their power should Poland's independence be threatened. France stood in the same position. During Colonel Beck's visit to London, the terms of a reciprocal agreement to render each other all assistance in their power in the event of a threat, direct or indirect, to the independence of either country were accepted on behalf of Great Britain and Poland. The debate in the House of Commons revealed general support of the principle of this momentous departure from tradition, and only such criticism was voiced on points of detail as it is the duty of an opposition to provide. There was then, and since, general repudiation of articles which appeared in *The Times*, drawing attention to the fact that assistance would be given if independence, as opposed to integrity, were threatened and attempting to assess the value of Danzig against a general war. Abroad, and to a certain extent at Home, *The Times* is obstinately regarded as a government mouthpiece and phrases quoted without their context seemed to have unfortunate intentions.

Whether Germany was in fact contemplating an immediate attack on Poland is a matter for speculation. The press campaign has continued and—in the customary sequence—acts of hooliganism have followed. The Poles have no love for Germany and their government is no longer inclined to suppress their feelings. It is to be hoped that no gun will go off unnecessarily. Even with the certainty that Germany would be faced with war on two fronts if she attacks, the Poles should not feel too confident.

The Polish army comprises some thirty infantry divisions and fifteen cavalry brigades on which expansion is doubtless planned. The air force is not comparable with Germany's. There are adequate industrial resources in the interior of the country which are being intensively developed and Poland's industry has been

strengthened by the acquisition of the Teschen area which would, however, be in a vulnerable position in a war with Germany. Like other nations, Poland has been modernising and re-equipping her forces as fast as financial considerations permit. She is not a rich country and one way in which Great Britain might assist her directly is financially. Communications on the eastern frontier are comparatively undeveloped. Assistance by land forces from Russia would be difficult even if willingly given or received and from this direction reinforcement would come most easily by air. There is an alliance, recently strengthened, with Rumania.

* * * *

South-East Europe

As suggested in our last number, it was Italy's turn. On Good Friday the Albanians were rescued from the tyranny of the Albanian government. This action may have contributed to the maintenance of Signor Mussolini's prestige at home, and served as a rejoinder to the democracies whose guarantee to Poland might seem to have given them the initiative. But in other respects it appears to have had small effect on Italy's control of Albania's raw materials or strategic position. The threat to the peace of south-eastern Europe was followed by guarantees by Great Britain and France to give all the support in their power to Greece and Rumania should either state resist with its national forces a clear threat to its independence. The policy was extended by the conclusion, announced on the 12th May, of an agreement with Turkey which provides for either country to lend the other all the aid in its power in the event of an act of aggression leading to general war in the Mediterranean. This is to be developed into a long-term reciprocal agreement and consultations are to take place with the object of establishing security in the Balkans.

The agreement is of importance both strategically and politically. The Turkish position in the eastern Mediterranean is of great strength. One of the entrances to the sea, through which communication with the wheat and oil of Russia and Rumania passes, is under her control (the Montreux Convention which permitted Turkey to re-fortify the Dardanelles is in no way affected by the new agreement). Her coast-line and islands are rich in harbours, which are of added value owing to the scarcity of good sites for naval bases on the southern and eastern shores of the

Mediterranean. And her mainland is within comfortable flying range of the Italian islands.

Politically Turkey is a stabilising factor in Balkan and Middle Eastern spheres. She is united with Greece, Rumania and Yugoslavia in the Balkan entente and with Iraq, Iran and Afghanistan in the pact of Saadabad. Her strong friendship with Russia dates from 1921. The question of the Sanjak of Alexandretta is the only outstanding point of dissatisfaction in her foreign policy, and this seems likely to be settled with the conclusion of a reciprocal agreement with France by the time these lines appear in print. Turkey is believed to have been largely responsible for the agreement at Salonika last year which, as described in our issue of October last, removed one of Bulgaria's grievances in releasing her from the military clauses of the Treaty of Neuilly. It is hoped that in the consultations for which the Anglo-Turkish agreement provides means may be found to relieve the remainder of Bulgaria's grievances, since grievances anywhere in Europe are dangerously liable to exploitation. Bulgaria wants the Southern Dobrudja, which passed to Rumania after the Great War, and an outlet to the Aegean. She wants to ensure reasonable treatment for her inevitable minorities. Though her correct behaviour has so far gained her little, she has shown no inclination to seek her aims by force; and though she has remained unwilling to join the Balkan entente, she regards friendship with Turkey and Yugoslavia as an essential policy. One would be rash to predict peace anywhere in Europe, but the Balkans do not, at present, seem to be danger-spot number one, even excluding Danzig.

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Yugoslavia

The integrity of the Balkan entente is threatened by the position in which Yugoslavia now finds herself, more certainly the victim of encirclement than the Axis powers who so over-work that word. Ever since the state came into existence, Yugoslavia has suffered from the minority troubles which seem inevitable in that area. The main problem is between the Serbs and the Croats. After the fall of M. Stoyadinovitch, agreement between these two peoples seemed nearer and it was believed that a solution had been reached between Dr. Machek, the Croat leader, and M. Tsvetkovitch, the Prime Minister, on the 27th April, though no announcement has so far

been made. The existence of the Slovenes and of the Bosnians, who demand a measure of autonomy but whom the Croats wish to include in their boundaries together with much else to which they are doubtfully entitled, make a settlement particularly difficult. There are also powerful, if less numerous, German colonies along the Danube and in the south, Macedonians susceptible to Italian propaganda since the annexation of Albania.

In these circumstances, Yugoslavia, in direct contact with the Axis powers and with hitherto not conspicuously friendly Hungaria and Bulgaria on her flank and rear, is anxious above all to keep quiet and avoid giving offence. She has a coast-line which might prove attractive to Italy and iron ore which Germany would doubtless like to secure more certainly than by concessions. A tongue of her territory is crossed by important railways serving Fiume and Trieste. The Regent, Prince Paul, has followed the fashion of going on tour and has been received by the rulers of the Axis powers; not we hope as other statesmen of countries now absorbed were received before him. It is probable that Yugoslavia will not willingly join the Axis or the Anti-Comintern Pact and that she wishes to retain her alliance with Rumania and membership of the Balkan pact. But no guarantee could help her much and she is in a difficult situation. She is understood not to have welcomed the Anglo-Turkish pact.

In Hungary a non-aggression pact with Yugoslavia has been mooted. Hungary has ambitions in the Danube basin and would be glad of a means of strengthening her position against Germany. But before such a pact were concluded, the question of Hungarian territory transferred to Yugoslavia after the war would have to be settled, and another obstacle is the Yugoslav-Rumanian alliance, which Hungary would like to break, for her ambitions are directed chiefly against the latter country.

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Russia

The system of guarantees and agreements entered into by Great Britain appears to have a logical extension in the conclusion of a pact with Russia, and this step has been hotly debated for the last two-and-a-half months. As usual where that country is concerned, arguments tend to be influenced by sentiments which have nothing to do with the case. The internal organisation of Russia is enough to convince those who wish it that the country is our natural ally and one endowed

with phenomenal powers, and that any delay in concluding an agreement with her is due to the determination of the conservative element of the government to have nothing to do with a state whose form of life they mistrust.

Facts which appear to be overlooked include the reluctance of Poland and Rumania to receive direct help from Russia. There seems, also, to be no particular reason why Russia should be ready, without receiving substantial guarantees in exchange, to come to the help of nations with which she has had strong differences in the past and which have shown no very great liking for her. On a superficial view, a policy of splendid isolation seems the most suitable one for Russia to adopt, though she could hardly avow this publicly. The significance of M. Litvinov's retirement is unknown. But the demand for the extension of the proposed system of guarantees to include Finland, Latvia and Esthonia, all of whom are determined not to be guaranteed and the last two of whom have signed pacts of non-aggression with Germany, has proved, whatever the intention, a fruitful cause of delay. Even if Russia is more long-sighted than to adopt a policy of isolation, her military value in a war of resistance to the Axis is uncertain. Her numbers are great; her equipment is relatively better than in 1914, and her industry more organised: but her communications are not in first-class order and there is no guarantee that her higher command, even after extensive purging, is more efficient than it was then. Any form of pact between Russia and the powers which the Axis chooses to regard as enemies may induce Japan to reconsider the decision which she appears to have come to, not to extend her adhesion to the Anti-Comintern Pact into a formal alliance with Germany and Italy.

An agreement to be of practical value must overcome these various difficulties and could not be concluded in a day.

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Compulsory Military Training

Great Britain's prestige suffered a serious decline after 1919 through a failure to equate announced foreign policy with the means to implement it should occasion arise. In the present circumstances, our increasing intervention to counter aggression and to preserve the peace of Europe has been preceded and accompanied by steps to improve the strength and efficiency of the fighting services, and has now required the final gesture of compulsory

military training. The re-armament policy attracted considerable attention when first announced and its progress has been watched with interest and with a measure of admiration; but probably without an adequate appreciation of the efforts entailed. The nations which look to us for support have, from their own bitter experience, acquired the habit of judging war potential—and even war effort—by the size of armies. We are familiar with the contention that during the Great War the French were inclined to ignore the proportion of the national effort devoted to the maintenance of Great Britain's navy, mercantile marine and industry: and there is no doubt that in spite of the re-armament programme, with its immense expansion of the air force and of naval construction, and in spite of the recent announcement of our intention to double the Territorial Army, the French found themselves unable to believe that Great Britain could seriously contemplate coming to their assistance with all the support in her power when she would not face the introduction of compulsory military training. We should be able to sympathise with France in this respect because both during and since the war there has been a tendency to judge France's war effort and potential from the ingredients which we ourselves understand best, the navy, industry and air power, and largely to ignore the contribution of France's magnificent army. In particular, the part played by the French army in the early days of the war in 1914 have been overlooked in many quarters. France is anxious not to have to face the strain of such days unaided again.

There has been much muddled thinking on the subject of compulsory military service. It has frequently been enforced at times of crisis in our history: but we have so long enjoyed the protection of our geographical position that we have come to regard military service as largely alien to our tradition and have complacently relied on the voluntary system, which conveniently throws its burdens on the willing and which provides unpredictable numbers for whom equipment and instructors must be arranged by estimation. Opposition has proceeded chiefly from "labour," many of whose members were absolved from voluntary service by the schedule of reserved occupations, and which has never objected that the compulsory payment of taxes was undemocratic in principle. Because compulsory service is introduced it does not mean that the whole nation is to be taken at once or

necessarily for long periods. The present plans will only affect some two hundred thousand men each year for a period of six months. It is probable that, with experience of its working, the benefits of the system will be more fully realised and opposition largely disappear, though it is no use pretending that it will cease altogether. The voluntary system is to continue and there is no indication that the intention to supplement it by compulsion has adversely affected recruiting. This is as well, for we must continue to rely on voluntarily enlisted men for service overseas in peace.

The effect of the adoption of compulsory military training on European opinion is everywhere reported as excellent.

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Labour's Defence Policy.

Before its conference at Whitsun, the Labour Party published its statement of policy for the organisation of defence. The document shows, on the whole, a reasonable appreciation of the problems. Dealing with higher co-ordination, it recommends that a reconstituted Committee of Imperial Defence should consider the defence problems of the Commonwealth as a whole; put the problems to the Minister for Co-ordination of Defence; review his proposals and submit them to the Cabinet. The Minister of Defence should head a council of the ministers for the service departments, for civil defence and for supply, which should prepare detailed plans and, after their approval, take executive action to put them into effect. The Minister of Supply would have the powers which it is apparently the intention of the present government to give him in war and which a considerable section of public opinion thinks he ought to have now. He would release all three services from the task of arranging for their supply, leaving them to concentrate on what is considered to be their proper task. He would have powers to ensure priority for government orders and to check profiteering. His Ministry would replace the ninety bodies and twenty-seven thousand persons which are at present said to be employed in the separate supply organisations of the three service departments.

Dealing with the reform of the forces themselves, proposals are made which display an idealism unlikely to commend itself in all respects to those who have the efficiency of the services at heart, but which should not therefore bar consideration of all of them

or discredit the policy as a whole. The pay of tradesmen should be similar for the three services; non-tradesmen's pay increased to a level which will compare more favourably with what they might get in civil life: service should be for three years: vocational training increased: more government posts reserved for ex-servicemen: discipline relaxed in leisure hours; and representation given on the lines of the Admiralty welfare committees. The reduction of the age for marriage allowance has already been announced. A similar reduction for officers is recommended. In all services more officers should be found from the ranks and all applicants for commissions should first serve for a year in them. Expenses on messes and uniforms and customary expenses of a social nature should be severely reduced. Similar steps giving increased pay and prospects of promotion should be taken in the Territorial Army.

We can sympathise with some of these proposals.

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Dominion Rearmament: Canada

The Dominions have been following the United Kingdom's lead in re-arming and re-organising their forces. In Canada, as far as the army is concerned, the process was begun some two years ago with the re-organisation of the Non-Permanent Active Militia and this year's army vote shows an increase of about 33 per cent. on last year's. Coast defences are being improved, considerable sums spent on armament, and the opening of an armoured fighting vehicles school at London, Ontario, evidences the interest taken in mechanisation.

The Navy vote has also increased substantially. A flotilla leader is to be purchased from the United Kingdom; effectives have been increased; new reserves are to be formed; and the purchase of motor torpedo boats and more destroyers is understood to be under consideration. The present navy consists of six modern destroyers and four minesweepers.

About half of the defence vote goes to the Royal Canadian Air Force and the Non-Permanent Air Force, for which new units are to be formed. The Royal Canadian Air Force has hitherto been employed in a semi-civil capacity on such tasks as survey, but has now been organised on service lines. A first line strength of twenty-three squadrons is aimed at, and this will be two-thirds achieved this year. Some fifty pilots for the Royal Air Force are

to be trained in each of the next three years at the aviation schools at Trenton and Camp Borden.

These preparations are at least adequate for a country which can rely on the assistance of Great Britain and the United States and indicate perhaps that the very natural determination of large sections of the population not to be dragged unwillingly into a war do not mean that Canada would not be found on the side of the democracies in case of need. At present, however, as indicated in the speech of the Minister of National Defence when submitting the estimates, defence schemes aim primarily at the protection of Canadian territory and of foreign trade with the help of the British navy. But, as in 1899 and 1914, Canada's man-power and industry may be prepared to come to the assistance of the rest of the Commonwealth.

Canada's industries played a significant part in the Great War and are probably the greatest factor in her war potential. Her mechanical transport industry is well known. The armament industry is at present in the early stages of development, but already Bren guns and gas-masks are under production. The Canadian and British governments have placed orders for trainer and bomber aircraft, deliveries of which have begun. Supplies of important raw materials are available.

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Australia

The article on exchange in Australia in this number is, it is hoped, the first of a series in which we shall hear more about the important development of the Dominion's defence services. Speaking on the 23rd March, the late Prime Minister outlined a three-year programme involving an expenditure of £65,000,000. This total has now risen to £80,000,000, which tax-payers have been told may increase further. The year's defence expenditure at £26,000,000 will be more than eight times that of 1931-32.

The naval programme provides for two cruisers, two destroyers, two sloops, motor torpedo boats, and vessels for working anti-submarine booms. All but the first will be built in Australian yards. The present Royal Australian Navy of five cruisers, five destroyers, two sloops and two other vessels is undergoing renovations. Merchantmen are to be stiffened and their crews trained to enable them to arm if need arises. Port Moresby, in Papua, and Darwin are to be developed as bases. The addi-

tion of capital ships has been discussed. Without them the Royal Australian Navy would be unable to compete with a raiding force which included them. But for Australia to contemplate the complete defence of her territory and commerce without aid would impose an impossible burden and she can safely count on assistance which would include the presence of capital ships in Far Eastern waters. The provision of capital ships would carry with it the need for docking facilities, escort vessels, and reserves, and would be prohibitively expensive.

The Royal Australian Air Force is to be expanded from its present first-line strength of 132 to 212 exclusive of reserves, and a number of new stations and landing grounds are to be established which will facilitate co-operation with the naval forces. Pending delivery of aircraft from the United Kingdom, training machines have been borrowed from the Royal Air Force. Other machines have been ordered from the United States. Two-seater fighters have been under construction and deliveries have begun. As a result of the British Air Ministry's mission, orders have been placed for the construction of air-frames for the new Beaufort aircraft for Australia and for Royal Air Force requirements in the Far East. Engines for these aircraft will come from the United Kingdom until they can be produced in Australia. Other air engines are, of course, already being turned out by the Commonwealth Aircraft Corporation.

The new Cabinet includes a Minister of Supply. Australia's munitions production has been doubled in recent years and her industry is likely to become of increasing importance in Imperial Defence. A national register has been instituted; sums devoted to air raid precaution work; and steps taken for the formation of a civil defence organisation.

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New Zealand

New Zealand has left no doubt of her intentions should the Empire be involved in war. Mr. Savage, the Prime Minister, pointed out to the Labour Party Conference that since the party had taken office, defence expenditure has been trebled. This year, £2,000,000 is to be spent overseas on equipment. The country's peace time economy is being planned to meet an emergency. Attention has been chiefly concentrated on air defence. Existing air force squadrons are to have detached flights in provincial centres and a new squadron

will be formed for the protection of Cook Strait. Progress is being made with the formation of a civil reserve for the Royal New Zealand Air Force.

The British air mission which went on to New Zealand after visiting Australia was impressed by the development of civil aviation and is understood to have recommended the manufacture in New Zealand of aeroplanes of a suitable type. The de Havilland Aircraft Company are to establish workshops near Wellington.

Speaking on the 22nd May Mr. Savage indicated the government's intention to bring the Regular Forces up to establishment. The peace establishment of the Territorial Army is to be raised from 9,500 to 16,000. A special reserve is to be raised for coast defence, and all men of military age were urged to enrol in the National Military Reserve.

A conference was held in April to consider questions of common concern in the Pacific with special reference to defence. It was attended by representatives of Australia, New Zealand and the United Kingdom.

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South Africa

South Africa is somewhat fortunately placed at a distance from potential enemies and is unconcerned, as her politicians have pointed out, in the affairs of Poland or Albania. The United Kingdom has undertaken responsibility for the defence of her coast-line and it is unthinkable that she should not come to the assistance of South Africa if that country were in any way threatened. Nevertheless, affairs in Europe and the reiteration of Germany's claim to colonies have led the Union to review its defence organisation. Mr. Pirow, the Defence Minister, visited Great Britain last year and arranged for the provision of arms and equipment which South Africa cannot manufacture herself. He introduced a three-year defence plan to cost approximately £6,000,000, which has been adopted. The plan aims at the strengthening of coast defences; the maintenance of an Active Citizen Force of three divisions backed by Defence Rifle Association forces and commandos; and an air force of five to six hundred first-line aircraft.

In his annual defence statement of the 23rd March, Mr. Pirow referred to the satisfactory state of provision of arms and equipment and said that South Africa would soon be able

to produce enough ammunition to satisfy her own requirements. In coast defence, protection on a scale greater than that recommended by the Committee of Imperial Defence would be provided. Capetown, Port Elizabeth, East London and Walvis Bay are to have 15-inch and 9.2-inch guns. The monitor "Erebus," lent by the Admiralty, is being reconditioned at the Union's expense and will arrive at Capetown in September to act as guardship. A South African crew will take her over as soon as they are trained. The Air Force now has nine squadrons, each with reserves of 25 aircraft, and 2,080 of the 3,000 pilots contemplated in 1934 are available.

All men of military age are required to serve in time of war. The introduction of a register for the South African Voluntary Reserve, which will simplify mobilisation, met with a remarkable response, and enrolment offices ran out of forms.

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The Rhodesias

In Southern Rhodesia, provision has been made for compulsory registration of all non-native males between the ages of sixteen and sixty. The Defence Force is to be reorganised with the assistance of specialist officers from the United Kingdom and will include units of all arms. In Northern Rhodesia, steps are being taken to establish a volunteer force and the appeal for voluntary registration has led to a satisfactory response.

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India

It is too early yet to give any details of the steps being taken in India to improve the efficiency of the Defence Forces. Action must depend largely on the reception by the United Kingdom government of the recommendations of the Chatfield Committee. Financial limitations, necessarily imposed, have hindered the development of the Defence Forces in this country and it is no secret that on account of these limitations they have fallen in some respect behind modern standards. Nevertheless, India can feel that she has contributed her share in the burdens of Imperial Defence even though her Defence budget has not risen in the same spectacular manner as those of some of the other members of the Commonwealth.

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Shipping

The importance of the mercantile marine in the defence of the Empire in general, and of Great Britain in particular, is stressed at all Imperial Conferences and was once more brought to notice by the annual reports of the Chamber of Shipping and the Liverpool Steamship Owners' Association, and by the report of the Imperial Shipping Committee on "British Shipping in the Orient." The reduction of our total mercantile tonnage since 1919 is a matter of concern in peace which in war may determine the national existence. Shipping interests and others concerned with the defence of the country have periodically pressed for government assistance to help British shipping to hold its own in commerce with mercantile marines which receive Government assistance by subsidies and more indirect manners, or which are freed from restrictions as to conditions of employment. The complacent view has hitherto been that the reduction in British tonnage is, to a certain extent, offset by increases in Dominion-owned ships and that, in any case, the improved efficiency of modern vessels enables an equivalent tonnage of goods to be carried. Much of the increased Empire tonnage would, however, not be available in war because it is locked up in the Great Lakes of America or in coastal waters such as the Malay States, or pledged to meet purely local needs.

Fortunately, the Government has now decided to act. A subsidy of £2,750,000 a year is to be available for deep sea tramp shipping; £500,000 a year is to be available in grants to ship-owners ordering cargo vessels in the United Kingdom; £10,000,000 is to be provided for loans to ship-owners over two years for building tramp and cargo liners; an advisory committee will consider requests for assistance to liner companies suffering from subsidised foreign competition; and a sum of £2,000,000 will be used for the purchase of vessels which would otherwise be sold to foreign owners or broken up, but which will now form a reserve for war requirements and may be of use for storage purposes. These grants and subsidies are conditional on co-operation from shipowners and shipbuilders, and an obligation will be laid on owners to offer vessels to the Board of Trade before they are sold or broken up.

Before these measures were announced, world shipping under construction had increased while British construction, in spite of the *Mauretania* and *Queen Elizabeth*, had fallen to a quarter of

the country's capacity and a low level of 22 per cent. of the world total. Within a week of the announcement by the President of the Board of Trade more orders were placed with British yards than in the whole of the previous year. It is hoped that our builders will no longer be unemployed and that British shipping will secure fair-play in the freight markets of the world.

The difficulties with which our shipping has to compete in this respect are well illustrated by the report on "British Shipping in the Orient," which presents the conclusions of a painstaking and extremely lengthy enquiry undertaken by the Imperial Shipping Company on behalf of the Government. This area is of particular interest to this country—since for the present many of our defence supplies, as well as other essential commodities, must be obtained from outside India, while India's export trade will retain its importance in war,—British shipping is described as suffering from a "creeping paralysis." While able, perhaps, to compete with subsidised German and Italian shipping, the British mercantile marine is not meeting successfully the challenge of the Japanese ship-owner, assisted by a lower standard of living, a depreciated currency and the concentrated support of all commercial interests which a totalitarian state can supply. None of the members of the British Commonwealth immediately and directly concerned in oriental waters, India, Australia, New Zealand and British Malaya has more than a few ships engaged in trade there, though each sends out large cargoes by sea. It is, perhaps, hard to expect them to take the long view and to realise before it is too late the importance of supporting British shipping. In any case, no arrangements made could be at the expense of Dominion or Indian mercantile marines. But some form of co-operation seems highly desirable and Government action should give the lead.

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Palestine

The proposals for an agreed settlement which the British Government placed before the Palestine Conference in March were rejected by the Jews and dissatisfied the Arabs. It was therefore left to the Government to devise a plan of its own and to put it into effect. The plan has now been published.

It may be useful very briefly to recall the events which led up to the present situation. In 1915 the Arabs were encouraged

to revolt by promises of assistance in securing their independence in an area from which parts of Syria were, out of deference to the French, explicitly excluded, but from which the exclusion of Palestine was doubtful. In 1917 the Balfour declaration might have been interpreted as reserving Palestine as a national home for the Jews. Jewish immigration began after the war and continued on a scale which led in 1936 to an Arab revolt headed by the Mufti of Jerusalem. Troops were sent to Palestine, order restored, and a Royal Commission sent out under Lord Peel. The unanimous report of this commission concluded that it was impracticable to suppose that Jews and Arabs could be brought together in governing an independent state and recommended partition into separate Jewish and Arab states with a British mandate over the Holy Places with a corridor to the sea at Haifa. The Jews and Arabs both opposed the solution recommended. The British Government accepted it, but unfortunately failed to put it into practice. In the meantime opposition in Palestine and its effect on neighbouring Arab states and on Moslem opinion increased. In September 1937 the Government informed the League that they were not committed to partition. In the meantime terrorism on a scale amounting to rebellion had broken out. The Woodhead Commission was sent to Palestine in April 1938 to examine the detailed problems involved in partition and to make recommendations. The report of this Commission, which was submitted last October, was referred to in detail in our January number. The Government accepted the view of the Commission that partition was impracticable. An abortive conference attended by representatives of the Jewish Agency, the Mufti's party, the Arab Defence Party (a more moderate body) and of neighbouring Arab states was then held in London. Later an unofficial Arab conference in Cairo toned down Arab demands to something resembling the Government's proposals as now issued.

These aim at the establishment within the next ten years of an independent Palestine State in treaty relations with Great Britain. As soon as peace and order have been restored, Arabs and Jews will be given an opportunity of taking part in the government of the country. The intention is that by degrees Palestinians will be placed in charge of all the departments of government. They will be assisted by British advisers and will be sub-

ject to the control of the High Commissioner. Presumably about one-third of them may be Jews, if Jews should decide to co-operate. During this period Jewish immigrants will be admitted at the rate of ten thousand a year and to these will be added twenty-five thousand more as a contribution towards the solution of the Jewish refugee problem. After this five-year period, a body representing the people of Palestine and His Majesty's Government will review the working of the administration during the first part of the transitional period and will make recommendations concerning the final form of the constitution. If after ten years the establishment of an independent state still appears impracticable, further consultation with the people of Palestine, the League Council, and neighbouring Arab states is provided for.

This policy was approved by both Houses of Parliament; in the House of Commons by a majority which must have been disappointing to the Government. An immediate reaction was the outbreak of Jewish rioting in Palestine and the Jews have declared their opposition to the plan. The Defence Party are apparently prepared to try to work it. The Higher Arab Committee under the Mufti, who is to remain in exile, are determinedly hostile. The Egyptians were not too pleased. As Mr. MacDonald said, the problem is one of reconciling right with right, and no solution to a problem of this complexity could hope to appease both parties. It may be claimed as a sign of impartiality that the solution now proposed pleases neither.

The main features of the policy are:

1. That the ultimate aim is the establishment of an independent state in which "the two peoples in Palestine, Arabs and Jews, share authority in such a way that the essential interests of each are secured." This appears to discard the principle laid down by the Peel Commission.

2. That the establishment of a Jewish national home in Palestine is to be secured before the mandate is given up.

3. That after five years, during which immigration is restricted, further Jewish immigration can only take place with the consent of the Arabs who can be relied on to ensure that the Jews do not achieve a controlling say in the government.

It appears that these features can only be combined in a federal state. This is the organisation proposed by former members of

the Peel Commission, and the Colonial Secretary has made it plain that federation is not ruled out. It has been suggested that by the time ten years have passed it might be possible for Syria to join the independent federation, and Canada has been instanced as a country in which federation gives security to a racial minority.

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Waziristan

Although a settlement has been reached with the Madda Khel and the Tori Khel, the situation in Waziristan remains much as before. Ipi's personal prestige is high and he continues to receive support from religious leaders and other opponents of the Government whose influence would be diminished by a return to normal conditions. There has been no main centre of hostile activity and such periodical gatherings as have taken place have not diverted the numerous small gangs from their profitable raids and kidnappings. This raiding coupled with sniping, sabotage on roads and telegraph lines, and highway robbery have kept the troops, scouts and civil forces in the administered districts fully occupied. The gangs are small and easily hid in the difficult country from which they operate. They are apt to receive sympathy from the districts which they raid as well as in their own areas. Indirect punishment, as so often, falls on the least guilty while fines and the forfeiture of allowances are off-set by profitable contracts and other financial gains which follow the presence of troops. Measures of civilisation such as transport contracts and opportunities for enlistment in government service can only take effect slowly.

During February a lashkar of all sections of the Madda Khel who had not held to their promises of the previous June attacked Datta Khel post with two tribal guns. The air action described in our last number had the main role in breaking up this force. A blockade of Madda Khel territory was then applied. This coincided with very severe weather. After some delay due to internal dissensions the tribe complied with the terms imposed and once more submitted.

In the meantime the 1st and 2nd Infantry Brigades were operating in the lower Khaisora valley in the country of the Tori Khel who had failed to control their hostiles. Some delay was caused by bad weather until on the 13th March the 1st Infantry Brigade began operations in the Shaktu valley where Mullah Sher

Ali had been reinforced by Mahsud parties. A sharp action took place on the 16th March when salutary casualties were inflicted on the enemy who had been concealed in caves and broken country. The Tori Khel made no submission, however, and proscriptive air action against them was continued.

During this period raiding into the settled districts tended to increase and additional areas where gangs harboured were proscribed for air action.

In April the submission of the Madda Khel on the 10th was immediately followed by a return to the normal system of political control which reverted from the General Officer Commanding in Chief, Northern Command, to His Excellency the Governor of the North-West Frontier Province. The 1st Abbottabad Infantry Brigade returned to its peace stations. By this time the blockade on the Ahmedzai Wazirs was taking effect. They evicted Mehr Dil and undertook to prevent his return. There were also signs that the Tori Khel, who remained subject to air action, were becoming more anxious for peace. On the 13th May representatives of the dissident sections were interviewed at Miranshah when they released four kidnapped Hindus, which they then said were all they had though they have since handed back six more. The air proscription and blockade were lifted and Tori Khel khassadars reinstated. A full jirga which was interviewed on the 1st June reaffirmed the undertaking to dissociate themselves from hostile persons.

In south Waziristan also there have been indications of more sincere attempts at co-operation with the government and rumours about the return of the Shami Pir which were at one time prevalent have slightly diminished.

In general, it can be concluded that at the moment the situation is better than it was at this time last year; but that this provides no guarantee of a speedy return to normal. As already stated, sniping, raiding, and kidnapping continue: the Ahmedzai salient harbours notorious outlaws: and Ipi is still apparently hoping to raise a lashkar.

THE STRUGGLE IN THE FAR EAST

By Captain A. D. Ward, The King's Regiment

On the 21st July 1938 Major J. E. H. Nicolls, M.C., delivered a lecture on the Sino-Japanese struggle to the members of the Institution. This lecture, which was published in the October number of the Journal, discussed the background of the conflict between China and Japan, and described the course of events during the first year of hostilities. The object of the present article is to carry on the story of events in the Far East for another year.

The situation on the 1st of July 1938 was briefly as follows. The Japanese attempt to capture Chengchow, as a preliminary to an advance on Hankow down the Kinghan Railway, had been foiled by the breaching of the Yellow River dykes. The centre of gravity had moved to the Yangtse, where the Japanese, with the final objective of Hankow, were approaching Kiukiang. In the air the Japanese had been able to obtain almost complete superiority in any area they wished, and air attack on Chinese centres of government and places of strategic importance had been carried out with little interference from the Chinese air force. The Japanese efforts to cut the Kowloon—Canton—Hankow railway by air action had met with no more than very occasional temporary success, and war material continued to be imported by this route, and to a lesser extent by the Haiphong—Yunnanfu railway. In order to administer the areas which were at least in nominal occupation by their military forces, the Japanese had set up governments with Chinese personnel in Peking for North China and Nanking for Central China. These administrations had achieved very little. They had not gained the confidence of the Chinese, and their authority was entirely limited to the areas in which their orders could be enforced by Japanese bayonets. The German military advisers to the Chinese Government had been recalled and their places taken by a Russian military mission. There was consequently a tendency for Russian influence to increase, particularly in North China. This appeared to have had no effect on the supreme position of General Chiang Kai-shek who remained the personification of the unity of China

in her struggle against the Japanese. On the Soviet-Manchukuo border, frontier incidents had been frequent and there was the possibility of some form of intervention by Russia in China's favour if a convenient opportunity should arise.

The principal military events during the past year have been the successful termination of the campaign for the capture of Hankow, and the fall of Canton after operations whose brevity surprised even the Japanese. In North China there have been no major operations. Here the year has been devoted to guerilla activities by the Chinese, and attempts at pacification by the Japanese. The claims of success by both sides have been grossly exaggerated, but the general result of hostilities in this area has been that the Chinese guerillas have failed to exercise appreciable influence on the campaigns elsewhere, while the Japanese have failed to establish the peaceful conditions necessary for the development and economic exploitation of the occupied areas.

The course of operations in the Yangtse Valley is illustrated in Sketch Map "A." From Kiukiang, which was captured on the 26th July, the Japanese started offensives in two directions, westwards along the river, and southwards along the Kiukiang—Nanchang railway. The immediate objective of the westward move was to force a way up the Yangtse by capturing the fixed defences at Tienchiachen on the north bank and Panpihshan or Split Hill on the south, and by destroying the boom joining these two places. The final objective was of course Hankow and the Canton—Hankow railway. The objective of the drive south was the railway junction of Nanchang, the capture of which would cut rail communication between Chekiang and Hunan. While these operations were progressing, columns set out across Anhwei and southern Honan, directed both on the Peking—Hankow railway and, through the Honan—Hupeh border on Hankow.

The offensive westwards progressed slowly; Juichang was captured on the 25th August and then for a time there was no appreciable advance. The Chinese resistance was stubborn, and by the 12th September the Japanese were still some miles from the Hupeh—Kiangsi border. On the 13th a naval landing party landed downstream of Matow on the south bank of the river and with the assistance of an army detachment in the area captured Matow the next day. Meanwhile on the northern bank, floods and Chinese counter-attacks prevented any further move until, on

the 1st September, the advance recommenced and by the 6th Kwangtsi had been captured. The occupation of this town was an important strategic gain as from it roads and tracks radiate south, which would enable the Japanese to take the river defences in rear. On the 16th a naval landing was effected six miles from Wusueh under cover of extremely heavy air and naval bombardments. The landing party, together with troops from Kwangtsi, then closed in on Wusueh which, despite stubborn resistance, was captured on the 17th September. The advance was continued up the river bank towards Tienchiachen, and again troops from Kwangtsi co-operated by a converging movement from the north-east. Tienchiachen proved a tough nut to crack and the defences were not captured until the 29th after a twelve-day battle, during which the Chinese positions were heavily bombarded by the Japanese naval guns, artillery and aircraft. On the fall of Tienchiachen the Chinese withdrew to Kichun which was not captured until the 8th October. Throughout September Japanese reinforcements had been arriving and by the end of the month over nine divisions were operating in the Yangtse Valley above Wuhu. The Japanese troops on the southern bank of the river captured Fuchihkow on the 24th September and then on the 4th October they staged a dawn attack for the capture of the Panpihshan or Split Hill position. The attack, which was preceded by a heavy bombardment, was successful and the last of the Yangtse defences fell into the hands of the Japanese.

Further inland the Japanese had advanced to within a short distance of Yangsin by the 16th September but made no further progress for some time. After the capture of the Split Hill position a way through the boom was cleared, and a number of dominating points on the south bank of the river were secured by a series of combined operations. These operations culminated in the capture of Shihweiyao on the 16th October. The troops from here advanced up the river bank, and Hwangshihkang was captured on the 19th October. Yangsin had fallen the day before after very severe fighting. With the loss of Yangsin and Hwangshihkang, the resistance of the Chinese became steadily weaker. Such will to fight as would have remained was not strengthened by the gradual knowledge of the course of events in Kwantung, and no more effective opposition was offered to the Japanese advance. On the north bank of the river, troops from Kwangtsi

and Kichun captured Kishui on the 21st October. From here a strong mechanised force captured Sinchow on the 22nd October and then advanced on Hankow. Hwangchow on the river was captured on the 24th October by troops moving along the bank of the river assisted by a landing party. The Chinese made no attempt to defend the Wuhan cities and on the 25th October the leading Japanese troops, a mobile detachment from Sinchow, entered Hankow to be followed the next day by the first of the ships which had played such a big part in the frequent combined operations. Prior to evacuating Hankow, the Chinese blew up anything that might be useful to the Japanese and destroyed what they could of Japanese property. The general withdrawal of the Chinese was carried out without any great loss of war material, except in south Hupeh where the troops suffered a considerable loss of morale. The Japanese advance to the Hankow—Canton railway was practically unopposed, and Sienning was captured on the 28th October.

The behaviour of the Japanese on entering Hankow was a very marked improvement on their actions at Nanking. Although there were reports of looting and some shooting of prisoners and civilians, the discipline of the army was generally of a high standard.

For a month after the fall of Hankow the Japanese were engaged in extending their control over the areas to the north-west and south-west of the Wuhan cities. The advance north-west was apparently directed on Siangyangfu with the left flank of the force engaged moving along the Han River. During the second week of November this force encountered considerable resistance, and made no further progress. The situation on this front remained practically unchanged until in March the Japanese attempted to extend their control of the left bank of the Han River. Chinese resistance was again stubborn, and by the middle of the month the offensive was abandoned. To the south-west the immediate objective was Yochow which controls rail, road and river communications to Changsha, the capital of Hunan. The main advance was down the line of the Hankow—Canton railway, but it was assisted by landing operations on both banks of the Yangtse. In addition a mechanised column moved parallel to the railway and about twenty miles to the east of it. The offensive in this area made good progress and Yochow was completely occupied by

the 13th November. The advance continued for about forty miles to the north bank of the Mishui River, which runs from south-east to north-west into the Tung Ting Lake. This rapid advance so demoralised the Hunan provincial authorities that they ordered the firing of Changsha on the 13th. The morale of the Chinese troops, however, did not seem to have been very seriously affected. The Japanese then consolidated their position in the Yochow area and there has been little alteration in the situation since the conclusion of these operations.

The advance southwards from Kiukiang met strong opposition from the Chinese in the Shaho-Lushan Mountains (Kuling) area, and little progress was made until the Japanese 101st Division from Shanghai was sent through to effect a landing on the north-west shores of Lake Poyang. This force captured Singtse on the 20th August and turned the position of the Chinese who were opposing the advance down the railway, and eventually, after very heavy fighting, the Chinese were pressed back from the hilly country in which they had taken up their stand. The advance was continued south-east by troops from Juichang, south from Shaho and south-west from Singtse, but the Chinese resistance continued to be stubborn, and, although supported by heavy artillery and air bombardment, the Japanese moved forward at an average of only one mile a day. By the 10th the Japanese were still three miles north of Teian, and the Chinese were continuing to put up the best fight since the early days on the Shanghai front. During September a Japanese column had been directed south-west from Juichang on Wuning. This force also met strong resistance, but by the 10th October it had succeeded in drawing about level with the troops operating against Teian. There was severe fighting on the Wuning and Teian fronts until, on the 28th October, the Japanese forced their way into Teian and operations in this area came temporarily to a close. During March the Japanese again took up the offensive and before the end of the month they had captured Wuning, and had entered Nanchang and cut the railway from Hangchow to Changsha. During these operations the Japanese did not complete the mopping up of the Lushan Hills area and a small party of Chinese troops remained in the vicinity of Kuling. The Japanese finally occupied this place on the 18th April 1939, the defenders escaping at the last minute through the mountain passes.

The offensive across the Anhwei plain was launched on the 24th August. This operation was subsidiary to the advance along the Yangtse, and the tasks of the force engaged were to cut the Peking—Hankow railway, and to assist in the capture of Hankow by a converging movement from the north-east. The column progressed at a good pace, Liuan was taken on the 28th August and Yehkiatsi on the Anhwei—Honan border on the 3rd September. Here the force divided, one part going towards Kushih which was occupied on the 7th September, the other, whose probable strength was one division, moving on Shangcheng. This place was taken on the 16th September, and an attempt was then made to force a way through the difficult country of the Tapieh Hills on the Honan—Hupeh border to the Macheng area. This division met serious opposition from Chinese troops of good quality and high morale, and its progress was slow. The force which had occupied Kushih then marched on Kwangchow in the capture of which it was assisted by a column which had left Pengpu on the 30th August, and, after moving up the Hwai River to a point north of Kwangchow, had turned south. Kwangchow fell on the 17th September and the combined force, which was about the strength of a division, then advanced towards Sinyang on the Kinghan railway and captured Loshan on the 21st.

During the last week of September the Chinese staged a number of counter-attacks to check the advance westwards but, although some of these met with local success, they were on the whole ineffectual. At the beginning of October the advance was resumed, at first against considerable opposition, but resistance cracked on the 6th October when a Japanese cavalry detachment, working round the south, attacked the railway and cut it at Liulin, south of Sinyang. After a half-hearted attempt to dislodge this party, a general Chinese withdrawal began. Sinyang was occupied on the 12th October and Chinese rail communication between the Yellow River and the Yangtse irretrievably broken. Weather conditions and difficulties over the length of its lines of communications prevented the force which had captured Sinyang from exploiting vigorously down the railway. Meanwhile the column advancing through the Tapieh Hills was encountering stiff resistance and Macheng was not captured until the 25th October. Then, with the general disintegration of Chinese resistance, part of the column drove westwards and

reached the railway on the 28th October, while the remainder pushed on to Hankow.

The Chinese do not seem to have taken advantage of the time at their disposal to perfect the defences of the Sinyang area. The country around Sinyang and for some way south of it is eminently suitable for defence, but there seems to have been no co-ordinated defensive plan. Where obstacles existed, the defences were so sited that fire could not be brought to bear to cover the obstacles, and generally, little attention was paid to the natural advantages of the ground in siting positions. The higher commanders were often unaware of the location of the defences of their subordinate units. The trenches themselves were all dug with an eye to a quick get-away. It seems reasonable to assume that a similar state of affairs existed to a greater or lesser degree throughout the armies defending Hankow, and it is difficult to discover the elements of a planned defence in the Chinese operations, or to find the hand of a co-ordinating and controlling authority.

During the latter stages of the operations for the capture of Hankow, the Japanese launched their long expected invasion of Kwangtung. Operations against Canton had undoubtedly been contemplated for some time, but owing to the effect on British and American opinion of the "Ladybird" and "Panay" incidents the project was postponed. By September, however, the course of affairs in Europe convinced the Japanese that they were justified in risking the effect that such operations might have on their foreign relations, and the capture of Canton was decided upon. The concentration of the necessary troops and transports around South Formosa was ordered and was completed early in October. A force of three divisions left Formosa on about the 5th October but waited at sea for a week, presumably for news of calm weather in Bias Bay which at that time of the year is subject to heavy swells.

On the night of the 11th October the Japanese transports entered Bias Bay (sketch map "B"). The night was brightly moonlit with the moon almost full; there was no wind and the sea was perfectly calm. The first flight embarked into landing craft at three a.m. and effected a landing at Hachung at four-thirty. The disembarkation of the 5th Division was begun at Aotowkong, while at Nimshan the 18th Division started landing, to be fol-

lowed later by the 10th Reserve Division. At daylight the Japanese warships began a bombardment of probable objectives ashore, under cover of which the covering force moved further inland to protect the landing of the main body. There appears to have been no opposition whatever, and the Japanese claim to have sustained no casualties at the actual landing is probably correct. On the 13th October feint landings were carried out at Swatow, and on the east shores of the Pearl River, and the Japanese navy secured the base at Bias Bay by landings at several points of vantage.

The advance inland was made in two columns, each of one division, along the Aotowkong—Tamshui and Nimshan—Waichow roads. Tamshui was occupied without opposition early on the 14th October. Here the division divided, the main body moving north on Waichow, while a detachment went westwards towards the Canton—Kowloon railway. Meanwhile the other column had also been closing on Waichow which was captured on the 15th with little loss. On the 16th Poklo was taken and the force which had moved from Tamshui to the railway cut the line and finally stopped all traffic from Hong Kong. Sheklung and Tsungcheng were both captured on the morning of the 19th. The main body now moved steadily on Canton while a detachment advanced further north, and on the 21st the Chinese abandoned Canton without resistance.

After the fall of Sheklung the Japanese sent a detachment south-west to co-operate with a landing force which was to leave Bias Bay on the night of the 21st October, and land on the eastern shores of the Pearl River, with the object of capturing the Bocca Tigris Forts. On the 21st the forts surrendered, after practically no resistance, to the force from Sheklung. The need for secrecy having been thus removed, the convoy sailed up the river in daylight.

During the course of the Japanese advance the Reserve Division completed its landing and, moving by the eastern route, deployed to protect the right rear of the other two divisions.

The Kwantung Army's defence of its capital was completely contemptible. The country was suitable for defence and had been strengthened by the construction of pill-boxes and other defensive works, particularly in the Waichow area, but no attempt was made to fight a defensive battle. In some cases the troops bolted

at the sight of the Japanese, and the higher direction of the defence is a story of inefficiency, corruption and disloyalty. The value which the Japanese set on the resistance likely to be encountered may be gauged from the fact that one divisional commander gave strict orders that any unit meeting Chinese resistance was to attack at once without waiting to carry out any reconnaissance. This, in spite of the fact that the Japanese artillery was left behind, and did not catch up until the infantry was within forty miles of Canton. Judging from results it would seem that the tactical idea that "time spent in reconnaissance is really wasted" is thoroughly sound when fighting Cantonese! The speed of the advance, about a hundred and fifty miles in ten days, astonished the Japanese and they experienced considerable maintenance difficulties. These difficulties were partially solved by dropping supplies from the air on the leading troops. Throughout the operations they took what, against even a second-class enemy, would have been unwarrantable risks, but their assessment of the Kwantung Army was sufficiently accurate to justify the adoption of tactical methods which, in the peace time training of most armed forces, would have earned their employer a pension.

Before the fall of Canton, practically all the civilian population was evacuated and, as the Chinese troops retreated, government offices, public works and Japanese property were blown up. The attempt to destroy the Pearl River bridge was unsuccessful, only one arch being damaged.

After occupying the city the Japanese pushed the Chinese back to a safe distance (for the position at the end of October see sketch map "B") and then attempted to clear up the brigand and guerilla situation. A drive to the south-east brought them to the borders of Hong Kong leased territory with the result that thousands of Chinese refugees flocked into Hong Kong. Subsequent operations have made little alteration in the position, except that the Japanese have extended their area of control to the south-west to include Kongmoon. There have, at various times, been claims of successful counter-offensives by the Chinese, but, although they may have had minor victories in encounters between small parties, they have never staged any operation which could be considered a threat to retake Canton.

The Japanese retained their superiority in the air throughout the period under consideration. Aircraft have co-operated closely

with most ground offensives, in some cases delivering such a heavy air bombardment on the objectives of the ground troops that either the defences have been destroyed or else the morale of the defenders has been so lowered that the attacking infantry met with no opposition.

The lines of communications along which war material has been imported into China have all been subjected to air attack. Except for a period of eighteen days in August 1938 the air operations against the Kowloon—Canton and Canton—Hankow railways met with little success. The Japanese took a very long time to discover an effective way to cut a railway and, although for long periods the railway was bombed almost daily, traffic was seldom interrupted for more than a few hours at a time. The Chinese anti-aircraft defence of the railway was negligible, and the bombers seldom met with any interference in carrying out their tasks, but although hundreds of bombs were dropped, the effort was generally dispersed, and individual bombing did not attain a high degree of accuracy. During the raids trains were halted and passengers and railway personnel dispersed; then, as soon as the hostile aircraft departed, repair gangs set to work and the trains resumed their journeys. The railway administration produced a most efficient organisation for the repair of the line and the effects of a raid were countered very rapidly. The higher officials in the railway are reported to have said that they feared a typhoon or heavy rain much more than Japanese aircraft. On the 11th August, however, the Japanese damaged a bridge thirty-five miles north of Canton, using a powerful German bomb, and then for fifteen days they kept up an aerial attack on the same point, and on the repair gangs. This had the effect of preventing a repair being effected until the 29th August, when through traffic was again resumed. Air operations against the railways continued but without occasioning any further stoppage of traffic until, on the 11th October, the day of the landing at Bias Bay, a small bridge was damaged on the Kowloon—Canton line and through traffic ceased.

The route from Russia through Lanchow and Sian has been heavily bombed on occasions and recently Yungchang (Paoshan) on the Burma—Yunnan road and Mengtz on the Haiphong—Yunnanfu railway have been attacked in an attempt to interfere

with the supply of munitions which are being taken into China along those routes.

Until their capture, Hankow and Canton were the principal objectives in the aerial offensive against centres of importance, while Nanchang, Changsha, Ichang, and more recently, Chungking and Yunnanfu have been amongst the other cities subjected to heavy air bombardment. In some raids the objectives have been of a definite military nature, but it is impossible to account for all the civilian casualties that have occurred as being due to the inefficiency and inaccuracy of the Japanese airmen, and there is no doubt that particularly at Canton and Chungking the object of a number of raids has been to terrorise the civilian population. It is also difficult to believe that the attacks that have been made on foreign mission stations, hospitals and consulates have not been deliberate. These attempts at intimidation do not yet appear to have produced results satisfactory to the Japanese.

Chinese fighter aircraft have on a very few occasions met with considerable success in attacks on the Japanese raiding aircraft, but generally the principal concern of the Chinese has been to get their aircraft into the air, and away from the vicinity of their aerodromes before the arrival of the enemy. Anti-aircraft fire on both sides has been most inaccurate and badly controlled and altogether it has been most ineffective.

The Chinese stood the shock of the loss of Hankow and Canton within a few days of each other with surprisingly little deterioration of the national morale. The government spokesmen at the time declared that these events ushered in the second stage of hostilities, in which the Japanese forces, having become deeply involved in China, would be harassed and weakened by guerillas in preparation for the third stage, when the invading armies would be hurled back to the sea. The activities of guerillas up to now have given no grounds for the belief that they will be able to reduce the Japanese armies to such a condition that the Chinese will be able to launch a successful general offensive. This does not mean that individual guerilla operations have not met with considerable success, or that the guerillas as a whole have not been a source of nuisance and annoyance to the Japanese; but there is no doubt that the Chinese have been incapable of co-ordinating the activities of the various bands and units, and

have had no plan for directing their efforts towards a definite military object. Until the necessary co-ordination can be achieved, and the prospect of its early achievement is not bright, the guerillas, although they are fulfilling a valuable function in preventing the Japanese from obtaining a return commercially for their expenditure, will not be able to play the part which they should in wearing down the morale of the Japanese main forces.

Chiang Kai-shek has maintained his position throughout the year, and has shown no signs of departing from his attitude of uncompromising resistance to any proposal of peace which infringes China's sovereignty. There is no doubt that peace parties exist in China but the defection of Wang Ching-wei in December showed that these have little influence, and that there is little likelihood of any challenge to the Generalissimo's authority. Soviet influence, which strengthened its footing when the Russian Military Mission was introduced in place of the German advisers, has increased during the past year. This is a matter of considerable concern to the Kuomintang Government who fear its growth at their expense, and realise that they will eventually be faced with resisting this attack on their conception of a unified China. At the same time, it is extremely difficult for the Central Government actively to counter this increasing influence, and it seems probable that it will become more powerful, particularly in the area of activity of the ex-communist 8th Route Army. It is also very probable that, as resistance by the Central Government to Soviet encroachment increases, Soviet assistance and supplies of war material will be more and more confined to the 8th Route Army in north China. So far the communists appear to have made no attempt to undermine the authority of Chiang Kai-shek, and it is most probable that they will continue to co-operate with him, at least until some decision is reached in the struggle with Japan.

In the occupied areas the Japanese sponsored governments have made little progress in establishing their position. Their activities have been confined to the introduction of new customs tariffs, favourable to Japan, and to the issue of manifestos denouncing the Kuomintang, communism and, above all, Chiang Kai-shek, to whom all the present trouble in China is attributed. The chief difficulty facing the Japanese in constituting these administrations has been to induce Chinese of sufficient standing and ability to come forward. There has been a natural reluctance on

the part of suitable public men to accept office under Japanese control, and this reluctance has been accentuated by the campaign of assassination that has been carried on against those who join the puppet governments. Attempts to set up a form of new central government have also failed to achieve any results, partly because the Japanese are unable to decide whether they shall try to inaugurate a unified government or some form of federation embracing the present Nanking and Peking regimes together with such administration as is eventually established in south China, and partly from failure again to produce a suitable head for the new government. Tong Shao-yi, who was at one time being approached in this connection, was murdered on the 30th September and since his death the Japanese have been trying to persuade Wu Pei-fu to accept the position. Neither Wu Pei-fu nor Tong Shao-yi showed much enthusiasm for the prospect and the conditions laid dawn by Wu Pei-fu as the terms of his taking office are such that their acceptance by Japan would virtually rob her of all that she has been fighting for.

Relations between the Soviet and Japan have been strained throughout the year, first as a result of the Changkufeng affair and then on account of the fisheries dispute. Incidents on the Soviet-Manchukuo frontier have been a common occurrence, but the outbreak in July and August assumed much larger proportions. The dispute was over the ownership of a ridge of which the principal features are known as Changkufeng and Shatsaoping. On the 11th July Russian troops occupied this ridge, which overlooks Possiet Bay, believed to have been developed as a Soviet submarine base, and also the defences of the Korean port of Rashin. An attempt was made at finding a solution by diplomatic means, but the Japanese troops on the spot became impatient and decided to eject the Russians. This led to hostilities which continued until the 11th August. The terms of the truce which terminated the affair contained provision for the demarkation of the frontier by a commission of two Russians, one Japanese and one Manchukuo representative. So far there is no news of the commission having met, but it is probable that the final result will leave the disputed territory on the Russian side of the border.

For some time there has been considerable trouble over the renewal of Japanese fishing rights off the Soviet coast. According to press reports this dispute was temporarily settled by the signing,

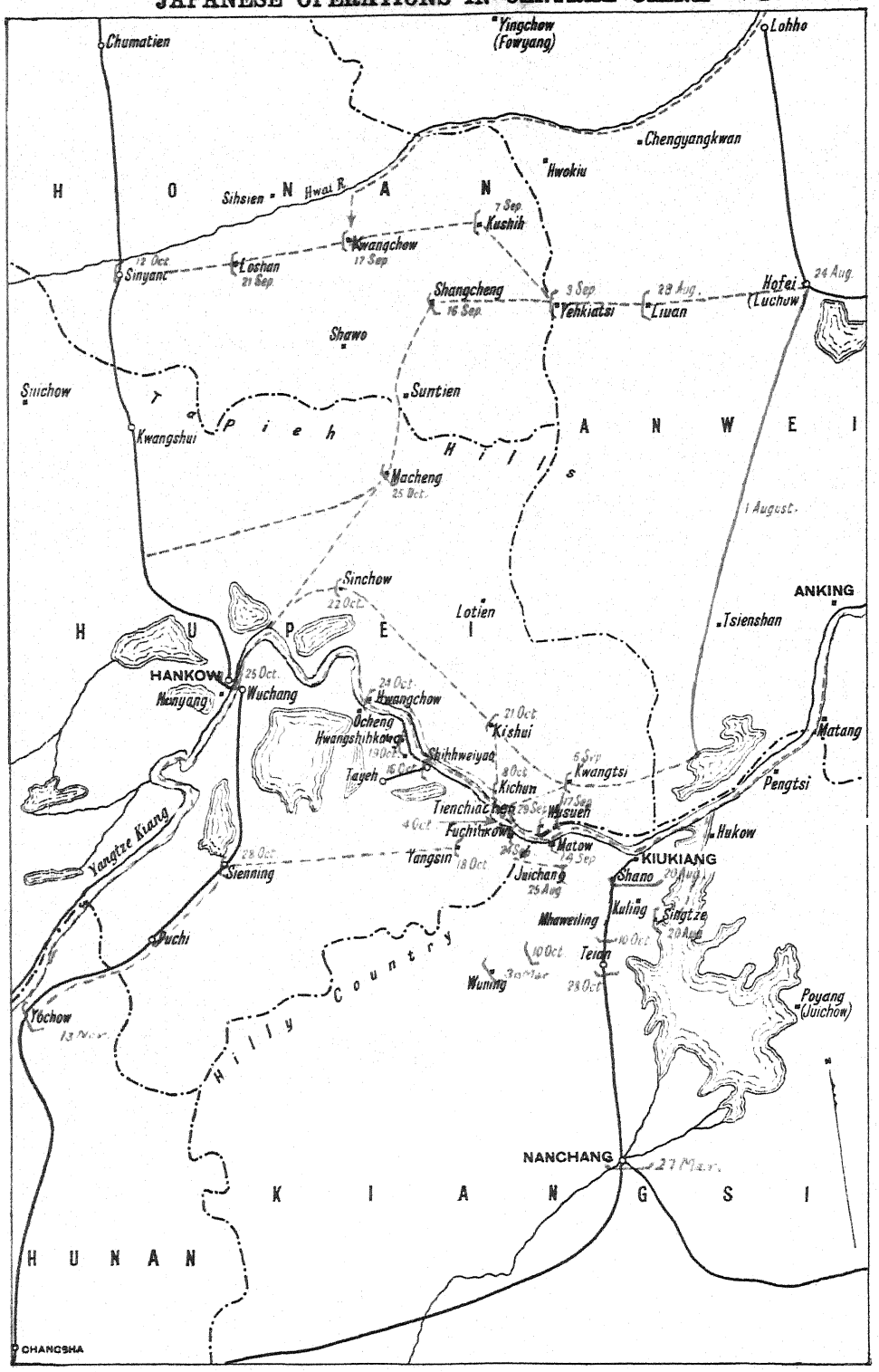
on the 2nd April, of an agreement which will be valid until December of this year. The Soviet has reserved, for strategic reasons, thirty-seven of the lots previously rented to Japan and has replaced only ten of these by sections in other waters. At the same time, Russia is to receive an increase in rent of approximately £17,600.

There seems, at present, to be no prospect of an early end to hostilities. The Japanese are deeply committed in north, central and south China. In each theatre they hold little more than their lines of communication, and they are getting no return for their expenditure. There is little doubt that, if they wish, they can advance further westwards, though the physical difficulties will increase; but it is equally certain that further advances will only increase their commitments, and will not bring them nearer to a satisfactory settlement. It would seem that their best policy would be to cut their losses in central and southern China, withdraw from those areas, and concentrate on producing conditions in north China which would allow them to exploit it as a source of raw materials, and develop it as a market for their industrial products. Such a solution is, however, impossible, as the loss of face incurred by the Japanese Army in withdrawing and leaving the unmilitary Chinese unbeaten would, in all probability, so discredit the Japanese military authorities that, at any rate for a time, they would be forced to forfeit their position as arbiters of their country's destiny. On the Chinese side, the will to resist appears to remain strong, and sufficient arms and ammunition are said to be available for war on the Chinese scale for some time to come. Communications have been opened through Yunnan to Burma and so to Rangoon, and although the much vaunted Burma—Yunnan road is really a very indifferent highway, parts of which will have disappeared as a result of the advent of the rains—before this article is printed—it does provide a line by which, at the lowest estimate, the requirements of guerilla warfare can be imported into China. On the other hand, lack of co-ordination and direction will most probably continue to prevent the Chinese from taking full advantage of the opportunities for guerilla warfare that the existing situation presents, and there has been little in previous actions of the Chinese Army to suggest that, if the guerillas were successful in their operations, the main armies would be capable of sustained offensive action. Military inter-

vention by Russia on China's behalf is now most unlikely and, although the Japanese military authorities will never consider their country safe until they have occupied the Russian Maritime Provinces, it is improbable that they will embark on a fresh venture unless the world situation develops overwhelmingly in their favour. The question seems to resolve itself into one of which nation will crack first. Chiang Kai-shek is confident that the Japanese will. It is unwise to prophesy, particularly in days when bankruptcy appears to be no deterrant to re-armament and waging war, but it seems unlikely that the next twelve months will see a decisive deterioration in the national morale of either side and the prospect for the next year appears to be one of stalemate and deadlock.

Sketch Map showing
JAPANESE OPERATIONS IN CENTRAL CHINA

SKETCH MAP "A"



Scale

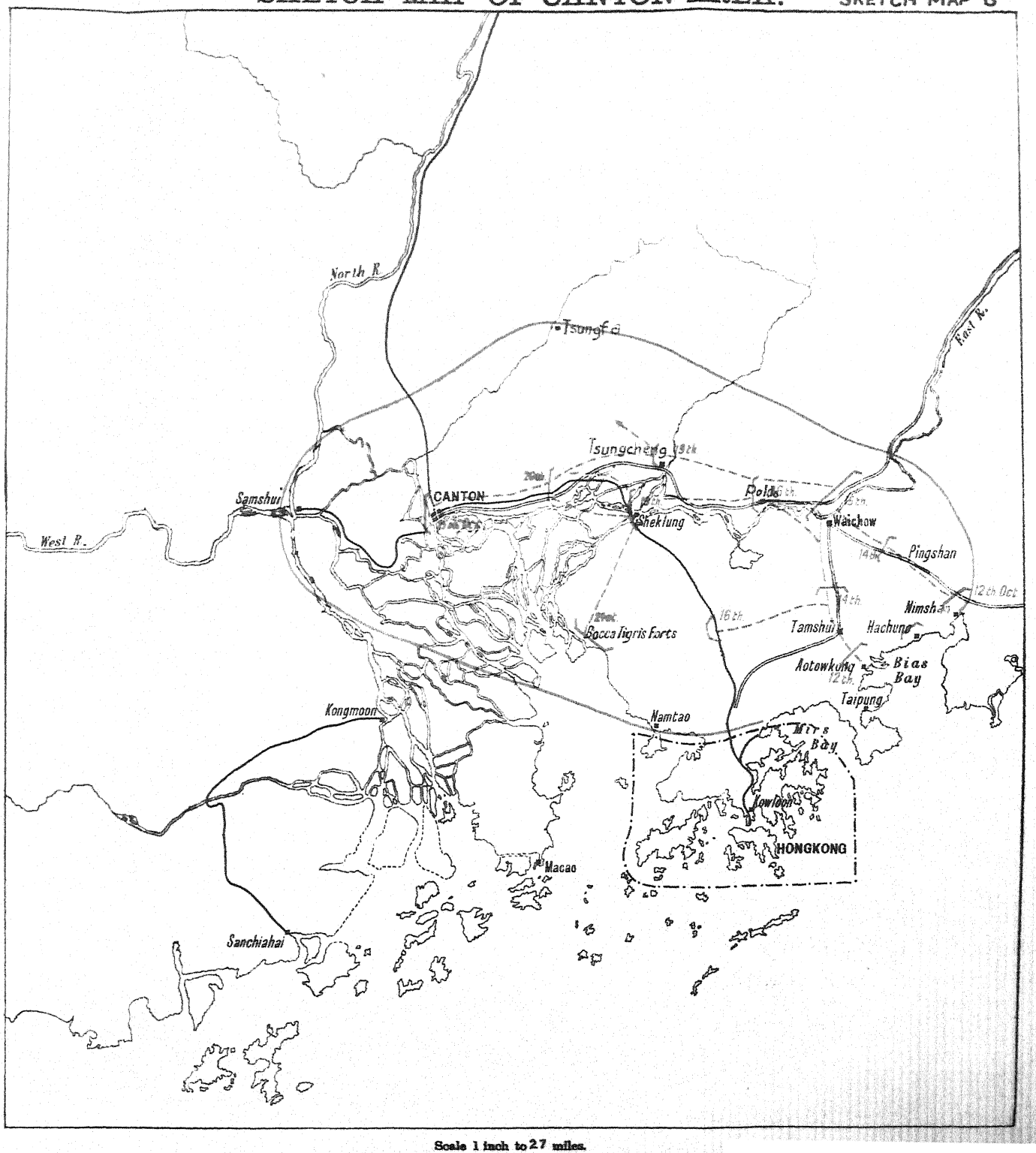
Miles 50 25 0 50 Miles

Railways .....

Provincial boundaries .....

SKETCH MAP OF CANTON AREA.

SKETCH MAP "B"



Scale 1 inch to 27 miles.

Miles 10 5 0 10 20 30 40 50 Miles

Course of Japanese advance in October 1938.

Limits of Japanese occupied territory 30th November 1938.

CO-OPERATION BETWEEN LIGHT TANKS AND INFANTRY

[With Special Application to Mountain Warfare vis-a-vis Infantry Battalion Officers]

[A lecture delivered to officers of the 1st (Abbottabad) Infantry Brigade in October 1938.]

Before I get down to the actual detail of my subject, I think it will be of help to deal, very briefly, with the development of the use of light tanks in frontier warfare and with the organisation of a light tank company in India.

Development of the Use of the Light Tank in Frontier Warfare.—Since the Mohmand operations of 1935, the policy affecting the employment of tanks on the frontier has, much to our delight, undergone a drastic change. Before those operations, the rôle of the light tank was, very briefly, to remain in the commander's hand for the main decisive blow. As you all know—on the frontier—the opportunity to deliver the main and decisive blow very rarely, if ever, occurs. In fact, tanks were kept severely in cotton wool for, I think, two main reasons:

(*a*) We were a new arm and few knew anything about us or how to use us;

(*b*) There was a tendency to be scared stiff that a light tank might be lost.

From experience gained in the operations, the policy affecting our employment is now governed by the words "we may be used for any task worth while." "What," you will say, "is the definition of a 'worth while task'?" The answer is: "A task whereby some definite tactical advantage can be gained; to achieve an object more effectively or in a shorter space of time than would be possible without tanks."

During the employment of my company in the Khaisora Operations from 29th November 1936 to February 1937, there were one or two slight arguments as to the "worth while task" and occasionally we felt rather like changing our name from the "11th Light Tank Company" to the "11th Light Taxi Company." I remember on one occasion in December—when the new road, having reached as far as Khaisora Camp, became practically impassable to anything except mules and light tanks owing to heavy rain—I was ordered to turn out my section and escort a

large consignment of goats "on the hoof" (which, I am told, is the correct technical expression) from Mir Ali to Khaisora Camp. Our comments on the elasticity of the term "worth while task" became somewhat terse by the completion of the task in hand.

There are still certain tasks which light tanks are definitely not allowed to be used for:

(*i*) We must not be frittered away on long-distance patrols or on independent or semi-independent missions where cavalry cannot accompany us and assist in ground reconnaissance.

(*ii*) Where armoured cars are available, we should not be used for escort work and protection generally on the L. of C. We are not designed for such work and it is wasteful to employ us in such a manner.

A possible exception to this rule is where road blocks have already been established by the enemy. Our cross-country capabilities will permit us to work *round* the road blocks and drive out the enemy detachments covering the blocks. The road blocks can then be removed.

Organisation of the Light Tank Company in India.—A light tank company on the frontier now consists of a company H. Q. of two tanks and one armoured car; one section of seven light tanks and two sections of five armoured cars.

You will notice that the commanding officer has both a light tank and an armoured car. This enables him to command and control the unit when it is working either across country or on roads. The second tank in H. Q. is used either by the adjutant or tank liaison officer or as a rear link tank (for increasing the range of W/T).

The type of light tank in the companies on the frontier varies. Some are the new three-men mark VI-B tanks and some are the old two-men Mark II-B tanks. The latter—*i.e.*, with two-men crews—we dislike for obvious reasons.

In the tank brigade at Home, the light tank section is organised in two sub-sections of three tanks each; but on the frontier for working with infantry it has been found by experience that three sub-sections of two tanks each is a much better organisation for the tasks given to us. The section commander in the seventh tank is able to control and direct his three sub-sections. Actually, owing to the fact that tank sections are so often detached for long periods from the company, you will often see us working on the frontier with sections of five and six. We do this as often

as we can so as to be able to keep a local mechanical reserve within the section.

As regards armoured cars: After some fifteen years' service in India, the old Crossleys have at last been replaced by Chevrolet engines and chassis. The Crossley armoured body has been removed and mounted on the Chevrolet chassis and the resultant armoured car appears very satisfactory and a great improvement on the old Crossley, especially in speed and climbing capabilities.

This new organisation of a mixed company has only recently been introduced. I would like you to realise that, from now on, I shall be dealing with a light tank company armed completely with Mark II-B two-men light tanks. This was the organisation we had when the incidents and experiences I shall be quoting occurred.

* * * *

Characteristics.—Now let us turn for a moment to our characteristics, namely: mobility, fire power and protection. On the frontier, so far, the enemy possess no anti-tank weapons. We are, therefore, more or less invulnerable to the tribesmen's fire and ground is our chief enemy. We are very sensitive to ground. Anybody who has seen us examining the various parts of our anatomy after a morning's tanking across average frontier country will realise *how* sensitive we are.

There is also the possibility of the construction of tank obstacles to be considered. In the last Mohmand operations, the tribesmen were so surprised to see us that they made no attempt to construct any tank obstacles or destroy any crossings that had been made over nullahs, etc. In the recent Waziristan operations, we encountered no efforts on the part of the tribesmen to build obstacles. At present, our moral effect on the enemy seems to be so great that, in the majority of cases, when they hear or see light tanks, they fade away instead of offering resistance. I do not think that this will always be the case or that we shall be let off so lightly in the question of obstacles in future operations.

It is difficult, if not impossible, to lay down what is passable to tanks and what is impassable. Our chief snags on the frontier are nullahs and large boulders. There are, of course, certain bits of country which can be classified immediately as "tank-proof localities," but large areas of doubtful country depend largely on the skill and pertinacity of the drivers and tank commanders. On the whole, all infantry units with whom we worked in the Khaisora operations seemed extremely surprised at the ground over which we got our tanks, and never realised our capabilities. I don't

mind admitting that I got one or two pretty severe shocks myself when I had a look afterwards in cold blood at some of the places which we had got to.

One useful thing to remember is that very often, although a nullah appears impossible to tanks at first, the tanks can, given time, usually ferret out a way across. In doing this, they rarely hold up the advance of the infantry as they are usually so far ahead. A very good example of this was the crossing of the Jaler Algad during the advance to the Khaisora River in December 1936, and the construction of the new road. My section was acting as advanced guard to the brigade and our orders were to cross the Jaler Algad and establish ourselves on various hills to the south to give protection whilst Jaler Camp was sited and the perimeter constructed. On arrival, we were about two-and-a-half miles ahead of our leading troops. On first sight, the Algad—which is a deep broad nullah with a surface largely composed of big boulders—appeared to be a complete tank obstacle. However, after patrolling up and down the north bank, we eventually found a somewhat precarious descent into the nullah bed. Further patrolling in the bed produced a difficult but feasible way out which, before, had been completely hidden from view. The whole operation took just over an hour and, a few minutes after we had climbed out, the leading infantry elements reached the north bank.

In working with infantry, I think the basic principle of our employment is to regard us as mobile armoured machine-gun carriers, and use us as such.

It is a curious fact that the light tank, which was designed primarily for use with a highly mobile force has, on the frontier, to adopt the rôle of a supporting weapon to the infantry. In other words, our tactical rôle is much more akin to the rôle of the "I" (or infantry support) tank battalion than that of the light tank battalion or the light tank sections of mixed battalions in the tank brigade. It might therefore be argued on first consideration that we have a wrong type of machine, but this, in fact, is not so, owing to special factors of the ground and of the type of enemy that we are opposed to.

The main consideration in designing an "I" tank is to ensure that it is sufficiently heavily armoured to be able to combat the anti-tank gun and, therefore, reach its objective. The second consideration is, of course, its cross-country capacity. The main consideration of armour is not applicable where the anti-tank gun

does not exist; the handiness and speed of the light tank has considerable advantages over the "I" tank when the large area of operations in Waziristan is taken into consideration. In carrying out its rôle of support to the infantry either in piquetting or in advanced or rear guard work, this high speed is of great value and it is considered that an "I" tank would be at considerable disadvantage in this respect.

There remains only the cross-country capacity of the different types and I would hesitate to proclaim the superiority of the "I" tank on the frontier until such a machine has been extensively tried out there. The areas on the frontier that are inaccessible to light tanks may be said to be inaccessible to almost any tank. Moreover, the light weight of the present machine possesses decided advantages on many occasions, particularly in the passage of hastily made khud tracks, as does its handiness and short-track base. We have, therefore, the paradox that the machine primarily designed for operations divorced from infantry in normal country has proved its special value with infantry in mountain warfare.

What the future problems of defence for India may be we do not know, but in the last fifty years all its wars have been settled on the frontier with infantry, and in these wars cavalry have had but little influence. It appears logical, therefore, to assume that the primary rôle of tanks in India will be in co-operation with infantry on the frontier, and that our training and development of tanks and their tactics should be towards this primary rôle.

* * * *

Now to turn to our actual employment with you in frontier operations:

The age-long restrictions to the employment of large forces on the frontier and the particular nature of the Waziristan operations—which, I am assuming, are typical of the majority of frontier operations—impose the splitting of the army's forces into a number of detachments of the size of a brigade or less.

Not only, therefore, are there constant demands for tanks from these different formations, but the scope of the country also limits the employment of tanks to that of sections only. More often than not, therefore, the light tank company is split up into three detachments of a section each and the limiting factor of the mountainous country makes the section—and not the company—the fighting unit. This was almost invariably our experience in the Khaisora operation. For practically the whole time we had detached sections working with Razcol, Tocol and the 1st Infantry Brigade and only on two occasions was the company

used as a whole. In each of these operations, one section was employed in covering the infantry advance guard, while the remaining two sections carried out the duties of right and left flank guards to the column during its advance. All three sections were in wireless communication with the company commander, who moved with column headquarters.

The point I really wish to make here is the fact that tactical command devolves upon the section commanders whilst tactical control remains in the hands of the company commander only to such a degree as he can influence the particular formation staff to which he is attached, and to the extent to which they, in their turn, are willing to accept his advice. This is a state of affairs which I think we, in the tank corps, are bound to accept and, luckily for us, our company organisation seems to fit the exceptional requirements with ease and no difficulty has been found in sections being detached for long periods. As an example, I was detached from my company with my section and worked with Tocol every day for three weeks and no difficulties arose.

In discussing the selection of suitable tasks for light tanks when working with infantry in mountain warfare, I propose to divide the subject into four main headings and four minor ones as follows:

Major
- (*a*) The approach march;
- (*b*) The attack;
- (*c*) The withdrawal;
- (*d*) The support of infantry piquets—
  - (*i*) When taking up position;
  - (*ii*) When withdrawing, and
  - (*iii*) On occasions when in position;

Minor
- (*e*) Night operations;
- (*f*) In camp;
- (*g*) Convoy duties over areas inaccessible to armoured cars; and
- (*h*) Reconnaissance by senior commanders.

(*a*) *The Approach March.*—In the approach march, I think we can be used quite legitimately for two tasks:

(*i*) As advance mobile troops in assisting the advance of infantry piquets by neutralising enemy fire. We should only be used for this task when it cannot adequately be performed by the machine-guns of the infantry. That is to say, on ground which can be moved over and reached by us but not by the infantry machine-guns.

If we can get behind or on the flank of the enemy who are holding up the infantry advance, we are carrying out a "worth while" task as we are making full use of our mobility and invulnerability against rifle fire. We can establish machine-gun posts in the rear of the general area held by the tribesmen, thereby threatening their line of retreat and forcing them to withdraw to a flank. This will cause opposition to the advance to be reduced, and should greatly accelerate the forward movement—thus saving time.

(*ii*) As protective covering to infantry in the advance up the main valleys. In this task we should again be used in the way I have just described. That is, to go forward and bring fire to bear on the rear of the positions held by the enemy. Having reached positions well forward we can be used to protect the inner flanks of the infantry by denying the enemy access to the valley. We can further form tactical pivots for the subsequent withdrawal.

Owing to the absence of anti-tank weapons on the frontier we are able, not only to seize but also to *hold* important ground for quite a long period without the speedy relief by other arms. The one essential proviso, though, is that we must be relieved before dark.

From the above, you will see, therefore, that it now appears quite legitimate to place a portion of your tanks—say a section—under the advance guard commander; but they should not be used as advance guard mounted troops, unless with cavalry.

(*b*) *The Attack.*—Opportunities for the use of tanks in a decisive rôle with wide objectives will seldom arise on the frontier but there is, I think, little doubt that, if the ground permits, they may be invaluable in forcing a decision. Should occasions arise when it becomes essential to force a decision, the chance of tanks being destroyed or immobilised must be accepted—provided always that the objective justifies the sacrifice. I think that the chief motto to remember in using us in the attack is that weakness rather than strength should be our objective and that, by separate action against the flanks or rear of the enemy, the best method of making use of our mobility is brought into play.

Before taking part in an operation of this nature two things are essential—reconnaissance, and ample time for withdrawal before night.

As regards reconnaissance, we like, if it is at all possible, as much information from the air as possible—especially in the shape of photographs. If this can be supplemented by information from the forward ground troops of the infantry, it is of the utmost value.

In the attack there is one problem which, to my mind, must always present itself to the commander and which is capable of being solved by him alone. It is obvious that the task of the tanks must be based on making the utmost use of mobility and fire-power. Up to date, the tribesmen have been very sensitive to the potentialities of the tank and very quickly make the best use of tank-proof ground if tanks are seen to be present with a formation. If there is no tank-proof ground, they fade away and very sensibly "live to fight another day." Now, if we want to hit hard and make the best use of the fire-power and mobility of the tank, it is obvious that surprise in the use of tanks should be sought. If the tanks are withheld out of sight, there will probably be opportunities for decisive action in that the enemy may be caught on ground accessible to tanks. If, however, the tanks have already been used with the advance guard during the approach march, the opportunity for surprise will have disappeared.

The commander's problem is, therefore, whether to use his tanks—or a portion of them—from the beginning and thus sacrifice the opportunity of giving the enemy a really heavy blow, or whether to keep his tanks up his sleeve until he sees an opportunity of launching them with complete surprise to the enemy.

Personally, I should always advise the use of tanks with the advance guard from the very beginning—provided, of course, that the ground is suitable for them. The impetus given to the advance and the saving in casualties to the infantry far outweigh, in my opinion, the problematic opportunity for a surprise attack by the tanks. This matter is, however, open to argument and certain senior officers think otherwise.

One thing is worth remembering, however. If you do decide to keep your tanks up your sleeve, and if you have the tank commander with you, he can—owing to their mobility—get his tanks up into action very quickly when the opportunity is presented.

(*c*) *The Withdrawal.*—In the withdrawal, we should be the infantryman's best friend. We are operating over ground which has been previously reconnoitred. We can move more freely than infantry machine-guns and so cover the enemy movements more adequately. We can pin the enemy down during the withdrawal

of the piquets. If necessary, we can often intervene by an immediate counter-attack with limited objectives to disengage troops pinned down by fire. Further, we can seize and hold ground and so enable the rear guard to withdraw or rally if hard-pressed. Finally, the mere presence of tanks will, I feel, often stop the enemy from following up.

(*d*) *The Support of Infantry Piquets.*—We are usually employed in this duty when working in co-operation with "road opening" and "road protection" troops.

To illustrate our task in this case, I think the best method would be to describe a normal day's work during the 1936-37 Khaisora operations.

The unit employed with the column was, invariably, a section. The section would leave the perimeter camp twenty minutes to half an hour before the infantry advance guard—usually just before first light—and take up a position commanding the first tactical feature on the line of advance. The section commander's tank would move on the axis of the advance with the section fanned out on either side, often on a front of a thousand yards. The section would be under the orders of the advance guard commander and would move by bounds ahead of the advance guard or, where necessary, covering piquets up into position.

On reaching the limit of advance for the day, all tanks would remain in positions of observation until the column commander was satisfied that all piquets were safely in position and everything settled. The section commander would then receive orders to carry out one or any of the following:

(*i*) To rally his section to a central position (usually close to column headquarters) from which the section could be launched to the assistance of any piquets very quickly;

(*ii*) To leave his section in observation supporting various piquets;

(*iii*) Having rallied, to carry out patrols at certain intervals of time over various sectors of ground which the column commander considered danger points; and

(*iv*) A combination of (*i*), (*ii*) and (*iii*) by sub-sections.

Ten minutes before the withdrawal was due to commence, the tanks would move out to their original positions—*i.e.*, covering the furthest piquets who would be the first to commence the withdrawal. When the withdrawal commenced, the section would move at least six hundred yards in rear of the red flag, working under the orders of the section commander who—this time—was

under orders of the rear guard commander. The section commander would gradually withdraw his section, watching each piquet carefully down, and moving always at least six hundred yards behind the red flag. It is of great assistance to the section commander if he can be provided with a copy of the piquetting plan. If he is in possession of this, he is released from the constant fear of missing a piquet and can check off each piquet as it comes down.

The infantry found, when working with us in a withdrawal, that the whole movement could be speeded up considerably for the simple reason that—owing to the fact that there were always five to seven mobile machine-guns covering their piquets down—there was no necessity for them to drop their own machine-guns in a series of "lay-backs."

* * * *

And now, before leaving my major headings I am going, if you will forgive me, to indulge in a number of "don'ts." Please don't think that these are given in any sense of carping criticism. They are not. They are merely the results of experience gained and are given with the hope that they will assist both of us when working together.

Firstly—when piquets are taking up a position or when advancing—we found on certain occasions that advance guard commanders tried to give us too much detail—even going to the extent of detailing the line of advance for individual tanks and sub-sections. Nobody can do this—not even the section commander—unless it is over ground previously reconnoitred. Give us our task and let the section commander get on with it—in the same way as you would to the gunners. If the advance guard commander wishes to keep in close touch with the tank section commander, he can, quite legitimately, order him to wait for him on each bound. The section commander can signal his tanks to advance to the next bound, and, after a conference with the advance guard commander when he arrives, can catch up his tanks again.

Secondly—when piquets are in position—it becomes the great desire—and quite a natural one, I think—for infantry commanders to replace infantry piquets by tanks. They saw a sub-section of tanks, say, on a ridge in observation supporting their piquet and the following thought occurred to them—again quite naturally.—"There are a couple of machine-guns immune from enemy fire concealed in armoured boxes. Why shouldn't I take away my men from that ridge and either place them in other positions

where I feel piquets are required or bring them into reserve and rest them?"

Gentlemen, those thoughts are a highly dangerous fallacy for the following reasons:

(1) There are only four, or, at the most, six, men all told in those tanks. It is too great a task and too great a strain to expect two of those men only—*i.e.*, the tank commanders—to keep a constant look-out all day over a large area or sector of country.

(2) Vision from a tank is limited and difficult at the best of times.

(3) Tanking in this climate is, to say the least of it, uncomfortable, and the consequent strain on the personnel is great.

By all means decrease your numbers on piquet duty if you have tanks in close support—*i.e.*, where you would normally use or require a whole company a half company would probably suffice. But *please* don't leave us out in the blue all alone. We like a bit of company in the same way as you do and the two arms can support each other mutually.

Thirdly—as I remarked previously, the tank section commander in the withdrawal is under the orders of the rear guard commander. We have always found a natural desire for the rear guard commander to have the section commander moving with him at his headquarters. Unfortunately, if this is done, the section commander cannot possibly do his job of controlling his section properly. He must be either in line with, or in the rear of his line of tanks—*i.e.*, at least six hundred yards behind the red flag. How then is the rear guard commander to communicate with the tank section commander if he wants to? The answer in practice is that he cannot, except by stopping the withdrawal and signalling the section commander to close.

Actually, it is not nearly so difficult as it sounds. Whenever a "schemozzle" occurred, the tank section commander launched a sub-section of tanks to deal with the situation and immediately closed on the rear guard commander for orders. If the rear guard commander feels really unhappy and wants a reserve of tanks up his sleeve to deal with any emergencies, he must ask for another section. This section will move with his headquarters.

One other thing—at one period, when working with Tocol from Tochi Camp towards the Jaler Algad, the column commander was allotted two sections of tanks. In the daily withdrawal to Tochi Camp, the column commander devised a scheme

by which one section covered one unit's piquets down—say the Dogras. Having reached the end of that unit area, the section leap-frogged through the next section and, in due course of time, covered down the piquets of the third infantry unit—say the Frontier Force Rifles. Meanwhile, the second section covered down the piquets of the second infantry unit—say the Northants—and on completion leap-frogged through the first section, and so on.

In practice, this proved to be unsound and we asked for it to be stopped. The section commanders were never certain where one unit's piquets stopped and the next began. It led to delay, muddle and, occasionally, the missing of a piquet.

The answer is to allot one section to cover the whole of the withdrawal and, if you have another section, to move it with the successive rear guard headquarters.

A good example of this scheme working smoothly can be quoted from the following experience:

On one occasion during the 1936 operations when my section was covering the withdrawal of Tocol, a piquet of the Dogra Regiment was shot up rather heavily whilst coming away. I was working with a section of five tanks—disposed with a sub-section of two tanks on each flank and my own tank on the axis of the withdrawal. When the piquet came away, they were roughly in line with the red flag, *i.e.*, about six hundred yards forward of the sub-section of light tanks covering them. This sub-section had first covered another piquet in, and was in the process of moving forward to cover the piquet in question down. Unfortunately, at the time this piquet was shot up, they were hidden from the view of their protecting tanks by a small hill. Luckily, however, there was another section of tanks moving with rear guard commander on that day. Three of these tanks immediately moved to the flank on which the piquet was being shot up, climbed a hill and within a minute-and-a-half of the commencement of the attack on the piquet, opened heavy fire with three machine-guns. The piquet was able to withdraw in safety with no casualties.

* * * *

And now we come to the minor headings:

(*e*) *Night Operations.*—Owing to our sensitiveness to ground, we are not much use in night operations. If, however, the ground has been reconnoitred and there is a moon, movement is practicable and we are trained to carry out night marches without lights. Owing to the noise we make, surprise is practically impossible, and for this reason, therefore, we should not be moved to our

positions when night operations are in progress until just before or just after dawn.

(*f*) *In Camp.*—We are not of much use to you in perimeter camp. We must have some little time for maintenance, and our gun mountings are not designed for indirect fire—although, of course, in case of emergency, we could be used. To employ us on night patrol work is dangerous and we should not be used to disperse snipers. Neither of these latter are, in my opinion, "worth while" tasks.

(*g*) *Convoy Duties.*—I have been asked to say a few words about convoy work. Light tanks are not designed for this work and it is really a waste, apart from the mechanical harm caused, to use anything but armoured cars. However, there are times when light tanks have to be used—occasionally no armoured cars are available and sometimes the country is inaccessible to them.

From experience gained, certain principles have been evolved for convoy work and they apply equally whether the A. F. V. escort consists of light tanks or of armoured cars. Before enumerating them, I wish to point out that these principles have been laid down for what we consider our most difficult task—escorting convoys through an unpiqueted area. They are as follows:

(*i*) Two sections of armoured cars (ten cars) are necessary in a column of fifty vehicles, if there is any possibility of serious opposition.

(*ii*) The following is considered to be the best distribution of the armoured cars:

Leading section.—One sub-section of two cars at the head of the column. Remaining three cars equally spaced from the head to the centre.

Rear section.—One sub-section of two cars at the rear of the convoy. Remaining three cars spaced equally from centre to rear.

In this way, the whole length of the convoy has immediate and close protection. In addition, there are two sub-units at the head and at the rear who are free of the column and can make use of their manœuvre in action. Further, the rear sub-section is in a position to protect and assist any breakdowns.

(*iii*) When passing through especially bad defiles, special dispositions should be adopted. The whole of the leading section of armoured cars should move on ahead and take up positions in the defile whence it can ensure the maximum fire effect from the guns of the cars. Meanwhile, the rear section of armoured cars will be disposed along the whole length of the convoy. The convoy will then pass through the defile as a whole or, as a further measure of protection, in three or four packets, each packet being passed through separately. On completion of the passage of the defile, both sections of armoured cars will take up their original positions.

(*iv*) If the above procedure is carried out, the infantry escort to the convoy, either as a whole or in part, should go forward with the leading armoured car section. They can then be dismounted and put to occupy such positions as may be selected by the column commander.

If entry into the defile is opposed, the infantry has at least the whole of an armoured car section to support them in de-bussing and getting into action. They are, therefore, in a much stronger position than if they remain with the column. Moreover, they can select their position for de-bussing which is seldom possible when within the column when their position is restricted by vehicles in front of and behind them.

We have strongly recommended that two of the lorries carrying the infantry escort should have armoured protection at least for the driver, and preferably side protection of the body for the occupants. This is not very difficult to carry out.

We think the best places in the column for these two lorries are one disposed about the head of the column and one (in which the column commander will travel) about the centre.

(*h*) *Reconnaissance by Senior Commanders.*—Light tanks were, and are being, used frequently by brigade and column commanders for this task. That they are so used would appear to indicate that they are of value for this purpose. We are also used by sappers to reconnoitre for water supplies, camp sites, etc., and for staff officers for various tasks. There is only one thing to remember when using two-man tanks for this purpose—the tank carrying the officer doing the reconnaissance becomes, to all intents and purposes, a "dead" tank as the officer takes the place of the gunner-commander. For one officer to carry out a reconnaissance

in a two-man light tank, therefore, the employment of a sub-section is involved. If two or three officers are reconnoitring, a whole section must be employed.

* * * *

To sum up—I think and hope that the advent of the light tank in frontier warfare is beneficial to the infantry.

Under suitable conditions of ground, light tanks in the hand of a commander provide him with one or more armoured machine-gun batteries, invulnerable to fire and of fairly high mobility. With these, when strong resistance is met, he may be able to accelerate the forward movements of his force. In the withdrawal, he has at his disposal, a stable buffer on which he can rely to hold off the enemy's advance and which will save many casualties—the bane of speed in frontier operations.

GENERAL SIR SAM BROWNE, V.C., G.C.B., K.C.S.I.

[Extracts from his Journal from 1840 to 1878]

1840

I was "sworn in" at the India Office, Leadenhall Street, in October 1840, just when I was sixteen. I embarked on board a new Barque, "The Worcester," 500 Tons, Captain Waugh, at Portsmouth on 20th December. Bad weather drove us into Portland or Plymouth (I forget which) whence we continued the voyage. My commission was dated from 22nd December 1840.

February 1841

Just before we arrived at "The Cape" nearly all the crew mutinied, and we had a scuffle with them, a rough tussle which ended in the most mutinous being put in irons along the deck. When we got to "The Cape" we were delayed some days in consequence until the arrival of a man of war with Admiral Elliott, to whom matters were submitted. A few were punished, but we sailed with a few in irons who were starved into promise of good behaviour: but the ship had to be worked with the aid of the Passengers.

We stopped some 3 or 4 days at Madras, where we landed some Passengers, and eventually reached Calcutta on 24th May—"The Queen's" Birthday—having been just over 5 months on the voyage.

Some time in June I left on a river Steamer for Allahabad, where I remained two or three days with Richard Lawrence of 73rd N. I., and continued my journey thence by "Palkee Dâk" to Delhi to join the 46th Regiment N. I. to which I had been posted, arriving there in end of July. Here I had a home at my sister's, Lady Metcalfe, the wife of the "Resident of Delhi," and commenced my drill at once.

October 1841

We were "told off" to join the force going to Cabul, but in consequence of the terrible sickness at that time prevailing the order was countermanded and we were ordered down country to Benares.

1842

We reached Benares about 15th December and were all housed by Xmas. The Regiment had a first rate Mess and Band and lived rather fast.

1843

At Barrackpoor the snipe shooting was superb. I have fired away a bag of shot at them during the day. I say nothing of the bag.

1844

In January 1844 we marched to Berhampoor. We were the only Regiment at Berhampoor. Some years before a British Regiment usually quartered there having been withdrawn, leaving unutilised the finest Barracks in India.

The life at Berhampoor was a most enjoyable one. The planters—a most hospitable and cheery set—ready to join in anything and a most hearty welcome when you visited them.

Close to our lines was a fine jheel which from beginning of August was a *mass of snipe* and a good many Cotton Teal. Dr. Young (Fagan) and myself were there every day and all day—bags were grand. We were accounted as "dead men," exposing ourselves as we did, day after day from 10 a.m. till 5 p.m. in a swamp. No one else attempted it.

1845

In beginning of 1845 we got orders for Lucknow, which we reached in beginning of March.

In the mean time, October 1844, I had got my Lieutenancy very unexpectedly, Captain Allcock on Staff employ being murdered near Agra by dacoits who were on the look out for the Magistrate.

The King of Oude occasionally gave grand entertainments to which we were invited. A specially grand one, on the occasion of Prince Waldemar of Prussia. At these entertainments there were animal fights of all descriptions—Elephants, Rhinoceros, Tigers, Buffaloes, Camels, Antelope, etc.

The King of Oude's troops on one occasion mutinied, and the whole force in Murrion was ordered out to attack them just outside the City. When we were forming for attack they "caved in."

Towards end of 1845 I was offered and accepted the Adjutancy of the Regiment.

In October 1846 we were ordered to Jullundur—a very nice place.

1847

In January 1847 I joined the Camp of The Governor General, Sir H. Hardinge, at Bhyrowal on the Beas to witness the signing of The Treaty with the Sikhs. A large force assembled under the Commander-in-Chief, General Sir Hugh Gough, afterwards

Lord Gough. The five brothers (Lawrences)—*viz.*, Alexander, Henry, George, John and Richard, were in the camp. I mention this, as the old Sikhs said then, that there was a prophecy amongst them that when 5 (Punj) Brothers were brought together to assist in a council against the Punjab power, it foretold the downfall of that Kingdom—only too true as two years later The Punjab was annexed.

In July 1847 I obtained 30 days' leave and went to Kussowlie to visit my brother Clem, who was then Deputy Commissioner at Amballa and had his office for a time at Kussowlie. My sister Charlotte (Lady George Lawrence) was then in Camp at Sunawar looking after the children of the future "Lawrence Asylum." She was then superintending the building and looking after all the details of the work and working it herself.

At the end of the year we were ordered to march to Lahore—on arrival were quartered in the City, along the old Ramparts. Some of the officers got a room each, with Bath room in a new Barrack.

1848

Henry Lawrence was at this time "The Resident of Lahore." John Lawrence was Commissioner of the "Jullundur Doab." George Lawrence was appointed to Peshawur as Political Officer, to which place my sister Charlotte accompanied him. I spent many a day at The Residency. One evening sitting in a Room there before dinner, an officer came in and we entered into conversation on Military matters, when he remarked with reference to the military executions for the acts of gross insubordination then being carried out, that he "would be damned first before he would let his own Regiment shoot the comrades in his own Regiment." Shortly after I was introduced to him—our new Brigadier—Colonel Colin Campbell.*

August 1848

Matters in the Punjab were now looking serious. Sirdar Chuttar Singh and his son Shere Singh with a large force had broken out in open insurrection in Huzara.

Attempts were made to seduce the allegiance of the Native Troops at Lahore, but Harry Lumsden and the small body of Guides scented out the whole affair and the instigators were caught and hanged.

A small force of the enemy approached so close to Lahore as to set fire to the Bridge of Boats over the Ravee.

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* Field Marshal Lord Clyde.

Orders were now issued for The Army, and Troops began gradually to arrive near Lahore from down Country. In beginning of November we received our orders—and with 36th N. I. marched from Lahore and concentrated some 10 miles from Ramnuggur.

Ramnuggur, 22nd November 1848

After a stay of some days we received orders late at night to march at once, and by day-break we were drawn up about ½ mile from Ramnuggur with 14th Dragoons on our right. Lord Gough and staff with our Brigadier Colin Campbell then appeared on the scene.

After a time Colonel Havelock, 14th Dragoons, galloped down to us from the front, where he had accompanied the Staff, shouting "Advance, Advance." We shouldered and prepared to move, but he called out "No, No, only H. M. 14th." They went on and we (the Infantry) followed. As we passed the Tower from which The Chief had been reconnoitring we could see the sand raised as the 14th were charging a body of the enemy who had crossed to our side of the River "Chenab." Some Horse Artillery followed the 14th. As we got nearer the scene on the lower ground—the dry bed of the River—we saw the Dragoons had wheeled to their right and some of our Guns were in difficulties having got into a quicksand. The enemy were kicking up a heavy fire from their heavy Guns in the opposite bank. We were ordered to halt just when we had got within range. Our 3 Guns were immoveably fixed and had to be abandoned.

After *this* we fell back out of range where, during the afternoon, we were joined by the remainder of the force, and we bivouacked "where we were" round log fires.

1849

On the 12th January we moved to Dingee.

Chillianwallah, 13th January 1849

We marched about sunrise from Dingee on this eventful day. Towards noon or perhaps a little later we found a small body of the enemy occupying a mound from which they were driven off by our Division. Our Brigadier "Hoggans" on the advance to the mound, supported our right Brigade, and I recollect how much we were all struck with the appearance of that strong Regiment, the 24th Foot in line in the new dress—french grey Trowsers and Albert Chakos.

We changed front and deployed—piled arms. Suddenly, shortly afterwards, Guns opened fire, and we found the enemy in

front of us. Speke, the African Traveller, of my Regiment had clambered up a Tree and called out to me. There were "no end of men in our front."

We were the extreme left of the Infantry, but on our left again a Cavalry force, 3rd Dragoons, and some other Regiments. We soon got the order to advance, but those on the right were engaged before us. The thick cover much impeded us and broke our line at one time when we were halted to reform. The enemy were in our rear (Cavalry) and we had to face about and drive them off. We continued our advance firing, when we suddenly became aware of a mishap on our right and got orders for the centre Regiment of our Brigade, 61st Foot and ourselves to change front half right. This disaster in the right Brigade of our Division occurred to the 24th Foot, which Regiment was frightfully cut up. The right Regiment of our Brigade, 36th N. I., was heavily attacked, the right wing giving away owing to this. The 61st Foot and my Regiment was ordered to change half front to the right, to take the enemy in flank. By this time the Sikhs were checked. The right flank Companies of the 61st having wheeled quickly and pouring in a heavy fire. When we got round a Sikh Battalion marched across our front in ¼ or close Column within 100 yards. We fired and 61st also as hard as we could, but they moved as on Parade, never hurrying. It was a grand sight, and my admiration of the sturdy, plucky character of a Sikh was formed from that occurrence.

But matters further on the extreme right of our line had been very disastrous. The Cavalry Brigade there, on meeting the enemy, retired in disorder. The 14th Dragoons and a Squadron 9th Lancers made a dash to the rear, riding thro' and over our General Hospital. The 6th Bengal Cavalry, one of the Regiments in the Brigade, held their ground for some time afterwards, but they at last went off. The result being that Christie's Troop of Horse Artillery attached to the Brigade was sacrificed and four of the six Guns lost.

Eventually the enemy were dislodged. We captured 49 Guns, but our loss was very severe.

We remained encamped for a long time, the enemy and ourselves watching one another.

Our stay in Camp at Chillianwallah was enlivened occasionally by a slight skirmish with the enemy.

Goojrat, 21st February 1849

One morning we discovered that the Sikh Army had abandoned their position quietly on the Kharian range and slipped

round our right rear towards Goojrat. We followed the next day. They, finding they could not cross the Chenab as all the Boats had been secured, determined to give us battle at Goojrat. We waited to allow the Force from Mooltan to join us, and then took place the final overthrow of the Sikhs. It was a glorious fine morning and open country, all young wheat and Barley Crops through which we advanced. As we neared the enemy we deployed into line.

The bed of a stream divided us from the enemy—the steep bank on their side, and they held 2 strong villages, Burra Kalra and Chota Kalra on their left.

At a fair distance from their position the whole of our Artillery came into action. An Artillery duel. We were much stronger, and after 2 hours they gave way. The Division on our right attacked the two villages Kalra and carried them with severe loss on both sides.

After the action we marched round the town destroying all the ammunition and securing the captured Guns. About sunset we got to the ground on the opposite side of the city, where we were to encamp.

April 1849

It was now decided to annex the Punjab, and a proclamation to that effect was issued. The Punjab Frontier Force was ordered to be raised, and I was offered the appointment of 2nd in Command of a Cavalry Regiment, which of course I accepted.

My new duties commenced at once and I had to select at first from the Sikh Troops who had been faithful to us during the late Campaign. Many of them declined service, but still I got a good many.

In the meantime I continued raising the Regiment, and when I had enlisted some 400 I was ordered to march towards Rawul Pindee, gradually, to pick up more recruits.

We then moved to Goojerat, the scene of the battle of 21st February. Here I commenced to drill the men I had got together.

1850

We remained here till March 22nd, 1850, when we received orders to march to the Eusufzaie to relieve the Guides who were to move into Peshawur.

We marched across the Eusufzaie for "Topi-Mainah" under the instructions from Government communicated to us by George Lawrence.

In May I was ordered off with a Squadron to encamp near "Shewa," as the village of Narinjee, just outside of our border, encouraged by the Sittana Fanatics, were inclined to be troublesome. One morning accompanied by one Duffadar I rode into the village of Narinjee. The inhabitants were taken aback at my appearance and asked my reasons for coming there. I told them I wanted to purchase some mules. Some old Grey-beards came forward, took hold of my horse's head, and politely led me out of the village begging of me never to come again or they would not answer for my life. That visit was useful to me as seven years later, when we attacked Narinjee, I remembered the positions.

In the vicinity of Gaza on the Indus the tribesmen beyond our border used, in small parties, to cross the Indus on their inflated Buffalo skins—called "Soornakh." They had marked down their prey, some well-to-do Bunyahs, some few of whom they would carry off, and on reaching the river he or they would be forced into these Skins and then the rider would blow into them thro' the mouthpiece fixed on purpose, and the unfortunate Bunyah was carried across inside the skin and landed more dead than alive on the other side and carried off into the hills and kept there till a handsome ransom was paid for their release—failing a ransom they were either murdered or brutally mutilated.

On non drill days—very early—we used to ride down Black Partridges, very easy work if your horse was well in hand and on his haunches. The country was very level and as you heard a cock calling, you rode up to the bush and had him out—full gallop after him—up again—out of any cover he had gone into. After three courses he was done, and you jumped off and laid hold of him.

Supplies for our Camp were in a great measure brought to us from across the river, 3 miles wide, and it was a curious sight to observe in the morning a whole fleet of men riding on "Soornakhs" (inflated Buffalo hides) lying on them full length with a big load balanced on their back and kept from sliding off by a cord round their forehead. All sorts of supplies used to come over to us, and as Maxwell, our doctor, was most skilful and generous in his medical help, I have seen sick and disabled men and women sitting on a man's back and crossing over in safety.

1851

On January 1st following I succeeded to the Command. I had in November moved the Regiment from Hoond to a ground close to Murdan, where we remained till end of February, when I received orders to march via Peshawur and Kohat to Bunnoo.

Directly we arrived I had to send out detachments to occupy various Posts, *viz.*, Goomuttie, another one near it which was shortly after attacked in force by the Wuzeeries who were beaten off, the Koorum outposts, and one at Tockie. Even if we were out for a day's shooting an express would hurry us in, one of the Posts being threatened or the enemy dancing the War Dance on the hills near the Goomuttie Posts visible from our Camp.

During the whole hot season we were encamped on the Glacis of the Fort, and a precious hot time we had.

Worth recording—Lieutenant J. K. Couper's Regiment, 2nd Bengal Grenadiers, being ordered to march from Rawul Pindee down country, wished to dispose of their Billiard Table, which I wrote for and bought and directed might be despatched and delivered to the Regiment at Bunnoo. My offer was accepted, and I was informed the Table had been despatched packed in one or more Native Carts (Gharries) under charge of a Chupprassie. The Table never arrived and nothing was heard of it. We refused to pay for it.

Some 10 years afterwards, on going over the Murree Church, the large slabs with Commandments over Communion Table were pointed out to me, and it was explained that a village near Rawul Pindee being searched for Arms during the Mutiny (1857) in a refuse heap outside the village a whole Billiard Table was found buried, and as no owners could be traced the Civil Authorities decided to make over the four Slate Slabs to the Murree Church, and on them were cut "the Commandments."

The Wuzeeries constantly enlivened us, and we had numerous little lively affairs.

1852

Sir Henry Lawrence—Lord Stanley (now Earl Derby) came down the Frontier and paid us a visit.*

During my absence on leave Lieutenant J. K. Couper, the Adjutant, had left for another appointment, and been succeeded by Lieutenant Dighton M. Probyn,† 6th Bengal Cavalry.

Our regulation system of shewing your sentries and calling out "Who comes there?" about the most stupid ever thought of. Conceal your sentries supported by his reliefs, in a different position—more in advance at night. No challenging—no talking. Ask no

*(I remember my father telling me that one morning when he was escorting this party along the frontier Lord Stanley commented on the number of weapons my father was carrying, the latter replying that he was designing a new belt for his regiment and was finding out by practical experience the best way of carrying his arms. This belt eventually became known as the Sam Browne belt.—S. D. B.).

†Now General Sir Dighton Probyn, K.C.B., V.C., K.C.S.I.

questions, but fire when within 10 or 15 yards, with Buckshot if possible. For this purpose we had all our .12 bore doubles out at night with our two or three "shooting" parties. I explained this to H. M'Pherson, my 1st Brigade Brigadier, at Jellallabad, and he was successful at once.

1853

October 1853.—We marched to Dera Ghazi Khan, where we relieved the 4th Punjab Cavalry and occupied their Lines (the old Sikh Cantonments) as a temporary measure.

We had a very pleasant time at Dera Ghazi Khan. During the cold weather constant shooting and Hog Hunting Parties on the various Islands on the Indus—no end of Pigs and some "Goinds," but the grass jungle was very thick.

In 1854 I obtained the sanction of the Punjab Government to enlist a few Beloochees. I offered a Commission to Ismal Khan, younger brother of the Logarrie Chief Jullach Khan, if he would come with 25 or 30 of his tribesmen, giving him also the Non-Commissioned promotions. After consultations *his* terms were "They were not to wear Uniform, not to be drilled, to wear their hair long as usual, and to remain at their homes to do 'watch and ward.'" These terms were not accepted.

1854

One morning as I was dismissing the Regiment after Parade the Native Officers came up and said, "A Petition to make" that the Regiment wished to volunteer for the War in the Crimea. Very satisfying. I went down the ranks and spoke to the men asking if it was their unanimous wish. They all yelled out "Yes." I forwarded their offer to Government.

1856

New Furlo' Regulations having been issued granting 6 months' Furlo' to officers holding Staff appointments, I applied for Furlo' and left by Steamer from Mooltan via Kurrachee and Bombay. R. F. Pollock accompanied me, and I took home a "Markhor," which was the first ever seen in England. I presented it to the Zoological Gardens.

1857

On the termination of the Bozdars expedition my Regiment was ordered to Kohat and we marched accordingly.

The day we arrived at Luttummur, just beyond Bunnoo, we learnt the first symptoms of the "Mutiny," little then expecting what it was to become.

We now heard of the outbreak at Delhi and the march of Troops for that place, and I got orders to move my Regiment to Peshawur.

We marched to Peshawur, leaving a small detachment at Kohat. By Edwardes'* management all the lawless border ruffians joined us and were packed off to be useful down country. These very tribes who had been a thorn in our sides for a long time past came to our assistance, and kept watch and guard over the Native Regiments who were mistrusted and had been disarmed.

After a fortnight's halt at Peshawur I was ordered to proceed to Hoti Murdan, where "The Guides" started and made their ever memorable march from Murdan for Delhi, under H. Daly, within 12 hours of receipt of the order, marching in 21 days 580 miles during the hot months of May and June, and making a detour one night 12 miles to attack Mutineers. The Guides lost 350 men killed and wounded at Delhi.

The Siege of Delhi was going on, and we all felt the precariousness of our position. The chances seemed against us.

1857

In beginning of July the Narinjee people, supported by the Sittana fanatics and some Mutineers of 55th N. I. who had escaped to the Hills, now became troublesome, and it was decided to give them "a turn."

About 9 p.m. of 20th the Force fell in "and we moved off towards Permouli," marching slowly and constantly halting in consequence of the close and pressing weather. So hot was it *during the night* that tho' riding, I was obliged to call for water and have my head watered. We skirted Shewa and moved on towards Narinjee, arriving there just as it was getting light. The enemy were taken by surprise, but at once took to their arms.

I imagine I was the only European who had ever before been inside of Narinjee. I remembered the situation and strength of the position, one of which surprised and *properly attacked* was easy of capture.

However, the whole force marched up the bed of the broad nullah running under the village and drew up in front of and under the village. The alarm having been given before we were ready to attack, they commenced to drive off their cattle, and their matchlockmen with the Sepoys of 51st N. I. (mutineers) and Sittana fanatics at once occupied the places of advantage.

I was ordered to pursue the cattle driven up the nullah, and secured some 100 head, losing 2 or 3 horses by the fire of their matchlockmen from the hill-side. I remained with my men till I saw there was some hitch in the front attack when I galloped down there and found the Mountain Battery had taken up a good

* Commissioner.

position on a rising mound in front of the village with the Peshawur Mounted Police drawn up just below them. I rode up to the attacking party of 5th Punjab Infantry—they had just emptied their muzzle loading (two grooved) Rifles, difficult to reload, when a band of Sittana Ghazees rushed out from behind some buildings most pluckily, led by a Standard Bearer, and swept in, sword in hand, cutting down some of the Infantry, who retired slowly, trying to reload. I called up the Mounted Police, who galloped down to me and they cut in.

A low thorn fence was then between me and the village, which my horse cleared and led me into a narrow fenced lane. As I rode up this lane a body of Ghazees came down. I drew my Revolver and shot the first 3 of them with one shot each. The 4th man I had to give two shots. This checked the remainder and now the Infantry poured in and the village was gradually carried.

Tho' not 9 o'clock, the heat was terrible. I never before or since ever experienced anything like it. After we had gone about four miles the Sergeant-Major of the Mountain Battery—the only European besides the British officers—rode up to my Doctor and complained of feeling very ill. Maxwell told him to ride in to Camp—which was then visible. We had not gone 200 yards when we picked him up—dead: and 49 natives were during the day brought in dead, tied on Ponies' backs—all from heat apoplexy.

That same afternoon a severe Tropical storm burst. We were deluged with rain, but it saved no end of lives and made it cooler for the remainder of the time we were in camp. We attacked "Narinjee" again and demolished the whole place.

We then again advanced on Narinjee, but in the manner we should have done in the first occasion, and there was no more trouble.

We remained pretty quiet after this at Murdan. All thoughts centred on Delhi and the terrible news reaching us from all parts of India. By end of September we heard of capture of Delhi, which relieved our anxieties as it smothered any irritation Trans-Indus which naturally would have broken out had there been much longer any doubts about our supremacy. We now breathed more freely.

In December I received intimation that the Regiment would have to march down Country, and I was ordered to raise an additional Squadron. I received every assistance from Edwardes, the Commandant at Peshawur, and in a very few days got together

a body of Pathans and Affreedies, a very rough lot and mounted on all descriptions of animals.

The Squadron of 2nd Punjab Cavalry, my Regiment, which started under my 2nd in Command Lieutenant Charles Nicholson and eventually when the latter was wounded and lost his arm and had to leave, was commanded by my Adjutant, Lieutenant D. M. Probyn, under whose command it remained, and did such glorious service. When I came down with the Head Quarters of the Regiment it rejoined.

I have written this last (above Para.) to record one misunderstanding made by so many correspondents and other book-authors, viz., "Probyn's Horse." As he was the only officer with the Squadron of 2nd Punjab Cavalry (Nicholson having been wounded and left), the Squadron was "called" after him. But as the following year he was appointed to the Command of 1st Sikh Cavalry (now 11th Bengal Lancers) and this Regiment also took his name, "Probyn's Horse," the services of the 2nd Punjab Cavalry during the Mutiny are erroneously scored to the other Regiment which did not then exist.

1858

On 1st January 1858 I marched from Murdan by forced marches for "Cawnpoor."

Notwithstanding this long march from Murdan to Cawnpoor—over 700 miles—I had only 16 horses on the sick list, nine of which were only serious.

After a few days' halt we marched with the Chief towards Lucknow. At "Onao" we joined the Army about to attack Lucknow.

23rd March, Koorsee

Marched out with a force under General Sir J. Hope Grant to follow some of the enemy and came up with them in Afternoon. I was ordered to take all the Punjab Cavalry and pursue them, as we found they were leaving their position. After going two or three miles, I came in sight of them and here copy from General Sir J. Hope Grant's Diary:

"Captain Browne, who commanded, seeing some Guns moving off, charged the Rebels in the most magnificent style. Five times he rode clean thro' them, killing about 200 and taking 13 Guns and a Mortar. His unfortunate Adjutant, Lieutenant MacDonnell, was shot dead in the act of cutting down a Sepoy. Captain Cosserat (1st Punjab Cavalry) was shot thro' the face and died shortly after."

Dighton Probyn, who had been very seedy, now left us for England, a Major, V. C., and the command of 1st Sikh Cavalry (later on named 11th B. Lancers), a worthy testimonial for his good services with the Squadron of 2nd Punjab Cavalry.

August

In August it was deemed advisable to occupy Philibeet some 32 miles from Bareilly.

29th August

The enemy had four Guns, and we heard the firing at Philibeet where I was ordered with my Regiment and some more Infantry. I arrived at Noorgah in the Afternoon and after hearing the report of the skirmish I went out to inspect. I found the enemy holding an elevated mound, the ruins evidently of an old village (Seerpoorah) some three miles distant. The ground separating us was one sheet of water—the inundation after the rains over Rice fields. It was impossible to attack from the front.

On return to Noorgah I decided to march during the night and get in rear of their position. Mr. Malcolm Low, C. S., the Assistant Magistrate, got a couple of Guides, an old woman and a boy, who promised to lead us by a circuitous route round the enemy's right and take me to the rear of Seerpoorah.

After some little distance we got into the jungle and kept just within the edge of it. It was close on sunrise when I found myself directly about half a mile in immediate rear of the enemy. Here I halted for a short time and made my dispositions for the attack.

30th August, Action of "Seer-poorah"

Hitherto all had been perfectly quiet and we had been unnoticed, but the accidental discharge of a musket gave the alarm and I saw the enemy's picket on our (then) right front, galloping into Seerpoorah. There was no time to lose, and the advance was ordered in the following order:

1. A line of skirmishers with supports 24th Sikh Pioneers (now 32nd P. N. I.) } under Lieut. Chalmers.
2. Detachments of Infantry Regiment 17th N. I. and Kumaon Levy. } under Lieut. Cunliffe.
3. One Troop of Cavalry in rear of Infantry.
4. A Squadron of Cavalry on either flank.

Orders were given to skirmishers to advance without firing and rush the position. From where we advanced there was grass from one to four feet in height to the foot of the slope, to the enemy's position.

As the advance commenced the enemy brought round their Guns from their front to the rear of their position and opened fire.

Accompanied by Mr. Malcolm Low, C. S., with my two Orderlies and the Tehseel Sowars following Mr. Low, I rode up the road towards the mound, on the right of Skirmishers.

When about 100 yards or so from the mound a 9-lb. Gun on the side of the road had been playing on the Squadron on the right under Craigie, and I had sent off an orderly to order them to push on and then wheel to the left and charge into the left of enemy's position; this 9-lb. now opened on us with grape, and its first round bowled over five men behind us on the road. I then, followed by my orderly, galloped on to the Gun, which was being re-loaded, and had a hand to hand business with the Gun's crew. Their leader attacked me with his Tulwar. One cut slipped down from my sword and caught the top of my knee, which it sliced, and before I could cover myself or get out of his reach gave me a slash thro' my left shoulder. As I wheeled round my horse reared and fell back on me. When I came to myself again I found myself in a Dooly minus my arm. The cut on my knee hid by the top of my long boot had not been noticed, and which I then pointed out, when it was sewn up. I was then carried into Noorgah, where again my knee cut had to be re-sewn.

1860

I had 18 months' sick leave, but got an extension of six months and returned to India and rejoined my Regiment at Kohat in December 1860, a married man.

1861-2

We remained at Kohat till October 1862, when we marched for Rajañpore.

1864

In January 1864 I was offered the Command of the Guides which I at once accepted. I rode up the Frontier from Rajanpore to Murdan, 480 miles, to take command and then back to Rajanpore, having got two months' leave to see the family off to England.

I rode the whole distance in five days by the aid of our frontier post horses and various chiefs, the latter friends on Frontier treks and shooting excursions. I rode back again the same way with the same help. I had 49 horses riding to Murdan and 52 riding back.

It was a great pang to give up the command of my old Regiment the 2nd Punjab Cavalry. I commenced to raise it in April 1849 and for two months held the temporary command, bringing the Corps up to 450 strong in end of June 1849. Major D. Keiller then joined and took up the duties. In November following 1850, on Keiller's death, I re-assumed command, in which I was permanently confirmed shortly afterwards and during a period of almost 15 years' service with it I held the command for 13 years, during which I was absent only once for six months to Cashmere 1852 and for 20 months in '59-60 on account of wounds.

1869

In 1869 I was again offered and accepted the Command of the Central India Horse, but before I took up the Command I received intimation I was to be appointed to the command of the Peshawur District, so in three months I wended my way back from Augur and relieved Donald Stewart at Peshawur in May.

In September a terrible outbreak of Cholera occurred. The disease worked its way up the main high road from Amritsar. All the British Troops, 36th, 38th and 104th, the Artillery, who were sent out into Camp, were hard hit. The Native Troops who remained in Cantonments also suffered severely.

The memorials in the Peshawur churchyard bear witness to the severe losses of the British troops.

1870

Having been promoted to Major General in February 1870, I had to give up my Command, but at the last moment, after I had sold off everything and was preparing to leave for England, I was told to hold fast as an "especial case" and received a complimentary letter from Lord Napier and I was re-appointed for another year.

1871

I gave up command of the Peshawur District in beginning of April and left for England from Bombay with "the family," Wife, Dollie, Laurie, and Percy, and travelled home via Brindisi, Verona, Munich, Cologne, Brussels, and Ostend, the route via France being closed in consequence of the Franco-German War.

1875

I remained "unemployed" till April 1875, when, having been offered and accepted the appointment of "Director of Remount operations in India," I started for India on 7th April and on arrival at Bombay received orders to report myself at Simla.

In August I was informed that H. R. H. The Prince of Wales had elected me to be the Chief of the Staff in India to arrange all matters and details connected with His Royal Highness' approaching tour in India, and I was summoned to Simla to receive Lord Northbrook's instructions and to arrange accordingly.

Lord Northbrook consented that I should not be dissevered from my Stud duties, which with the Members of the Committee at Stud Head Quarters and Secretary and Office with me on the tour should carry on the work at the same time.

1877

In April 1877 we went up to Simla again for the hot season, and again after the inspections and castings were over tried another line of country for a Run and succeeded in finding one some 20 miles from Lahore on the Mooltan line, which I later on strongly recommended should be taken up.

1878

In April 1878 I was offered and accepted the command of the "Lahore Division" and at once went up there to take it up in succession to Donald Stewart who had to leave on account of ill-health.

In beginning of August I was offered the seat of "Military Member of Council" and went up at once to Simla to succeed E. Johnson, who had gone home very ill. I was to officiate for him. I little knew what important events there were then on the cards. Fred Roberts met me some 2 miles from Simla and as we rode up I learnt from him how imminent and serious were our relations with Cabul.

Lord Lytton was "The Viceroy . . ."

Note

The following copy of a letter regarding the Sam Browne Belt was amongst my Father's papers. It was in an envelope together with two copies of the Army Orders, 1st September 1899. The original letter was evidently one written to the War Office when the War Office were considering the introduction of the Belt to general service.—*S. D. B.*

This Belt is an improvement on the one I saw at The Stores.

Over and beyond the exact waist measure there should be not less than 2 holes (3 inches) to admit of its fitting easy over outer coat.

The two studs on the sword sling and the one on the Frog should not be so high. Space under the head is only required for one leather's thickness.

The Tongues of the Buckle should be more solid and not so fine pointed.

The Pistol Pouch should have the upper portion of the loop (thro' which the Belt runs) broader—as broad as the Pouch will admit of. I have scratched it on the Pouch. This can easily be done by reducing the depth of the loop which should not be an iota deeper than is actually necessary for the belt. Yours is much too deep. The object of its being wide as possible at top and fitting the Belt tight is to prevent the Revolver from shaking at all, at whatever pace you may be riding and keep the point of the Revolver clear from your body, preventing any mishap to yourself or horse from accidental discharge. A Pistol Pouch as generally made invites serious mischief if accidentally discharged by the muzzle being pointed straight down on to the thigh. The particular slope and the breadth of loop at top in my proper pouch renders an accident to the wearer or to his horse impossible.

The Pouch, when buttoned on to its proper place, should lie in the right front hollow over right hip, easy and comfortable, the point of Pistol clear of thigh and pointing to the rear. The revolver easily accessible for withdrawal instantaneously when required, and when in Pouch not interfering in my way with sword arm.

Mr. R. Garden, Saddler, 200 Piccadilly (who retired from business in 1891) was the only maker who used to make my belts properly. He made the original one in 1856 from a pattern I brought that year from India. He used to seat the purchaser on a horse block and fitted him exactly, seeing to the lie of the Revolver and to the proper hang of the sword. He did credit to my invention but soon all sorts of Patterns under my name were made and all sorts of bastard things were issued.

The two extra Ds at back of Belt are superfluous and were only put on for a time when the Belt was worn over a sheepskin coat to bring the shoulder brace more to one side.

THE FORM OF APPRECIATIONS AND ORDERS

By Brigadier G. B. Howell, M.V.O., M.C.

Training Regulations state that a distinction must be drawn between appreciations elaborated in peace time and appreciations in the field. In the rest of section 22 however little attempt is made to do so, and the remarks therein are made to apply equally to both. In this paper the second form of appreciation only is referred to, *i.e.*, appreciations of strategical or tactical problems in the field which, in the case of minor tactical problems, may not be committed to paper.

In Training and Manœuvre Regulations 1923 there was no insistence on a definite sequence, in fact it was stated that "So long as the reasoning is logical and leads up to a definite plan the actual form of an appreciation is of minor importance;" but Training Regulations now insist on the accepted logical sequence. It is suggested that this sequence is neither logical nor suitable to modern conditions of warfare.

It must be the experience of all senior officers that the most difficult subject in which to instruct their juniors is the making of appreciations, in fact at a T.E.W.T. or examination the words "appreciate the situation" seem to have a stunning effect on the brightest. It is inconceivable that if the accepted sequence was really logical the vast majority of officers would find it so difficult to follow. One tries to persuade them that they are only going through the normal mental process which they do when they make up their minds about anything in their ordinary life; but this is obviously untrue, as otherwise appreciating the situation would come naturally to them, which it certainly does not. In fact it may be contended that to go through a laborious examination of all the factors and possibilities before considering a plan, however tentatively, is quite illogical. It is certainly not what one does in one's normal life in which such a process would lead to hopeless indecision.

Marshal Foch said "in war we do what we can to apply what we know." In other words our actions are decided by a combination of, or contest between, our natural instincts and our previous training. The less these two influences diverge the better, and the ideal is reached when they run parallel. Human nature cannot be altered—training can. To endeavour to train officers to

adopt in war a process which they do not follow instinctively and which they cannot even master in peace is to make these two influences definitely antagonistic. There can be little doubt that nearly all officers make their appreciations in a more natural form, and twist them round into the accepted form afterwards. This frequently results in a plausible excuse for a preconceived course of action, and any factors which reduce the plausibility are apt to be omitted or slurred over.

It is suggested that the following sequence is more in accordance with what happens in an officer's mind, and would therefore be a more logical one to accept.

1. Object.
2. Plan in general.
3. Considerations which affect the attainment of the object with deductions as to how the plan must be elaborated to nullify adverse factors and utilise favourable ones.
4. Courses open to the enemy which may affect the plan.
5. Plan in detail.

Not only is it contended that this sequence is more logical but also that it would lead to more decision and determination in commanders. Further it would ensure that adverse factors are given full consideration and plans made to nullify them and counter possible moves of the enemy without surrendering the initiative. In any case it would be more suited to modern conditions of warfare. With the great increase in mobility conferred by mechanisation and advent of armoured fighting vehicles in large numbers some change in the present sequence appears to be essential. There will be so many possible courses open to both sides and the factors of time and space will be so involved that, unless he had a tentative plan in his mind in light of which to consider them, a commander would become so confused that he would never be able to come to a decision.

To elaborate the proposed form in more detail:

1. The object. This paragraph must obviously remain as it is at present and no comment is necessary.

2. The plan in general. This paragraph might be headed "Courses open to own side with plan in general," as before the general plan is decided upon possible courses must have been considered. On the other hand there is seldom, if ever, more than one reasonable course open. In the present form of appreciation it will be found that the other "courses open" are either

set up to be knocked down like ninepins or are really only modifications of the general plan, and these are dealt with in paragraphs 3 and 4.

3. Considerations which affect the attainment of the object. In this paragraph all the relevant factors will be dealt with, but more objectively than heretofore as they will be considered with particular relation to the general plan. Consequently the deductions will be more useful. Take for a simple example:

"The ground is open and any advance across it will be liable to suffer heavy casualties."

The logical deduction from this is not to advance. If, as he is supposed to at present, the commander postpones consideration of his plan until the last, and it then is to attack, this deduction is useless to him. If, however, he has already decided that his general plan is to attack, the logical deduction will be to counter this factor by heavy covering fire, smoke, armoured fighting vehicles, etc.

In this way during this paragraph his plan gradually takes detailed shape.

4. Under this paragraph he considers the various courses open to the enemy and how he may counter any adverse moves or take advantage of any favourable ones.

5. His plan will now have taken definite shape, and it only remains for him to state it in sufficient detail for the staff to draft the necessary orders.

It is not contended that this proposed form is ideal. It is, however, contended that the present form is definitely in need of revision, and this is an attempt to make that criticism constructive.

* * * *

We now come to the form in which the orders to give effect to the plan would be drafted. It may seem revolutionary to criticise a form that has remained unaltered in anything but minor details for so long, but it is contended that here again modern conditions necessitate a change. The present form existed some time before the Great War and was designed for the conditions then obtaining, which were:

1. We had a small highly trained regular army consisting of only three varieties of fighting troops.
2. More insistence was laid on unthinking obedience.
3. It was not then realised that control on the battle-field would pass from the generals to the junior officers and non-commissioned officers, and that success or failure would depend on the skill and initiative with which they could contribute to the general plan.

That it stood the test of the war was due to the stability of fronts, the lack of movement, and the ample time that could be allowed for the detailed study of orders with boundaries, objectives, etc., marked on elaborate and accurate large scale maps. We hope that these conditions will not obtain again. We look rather for a war of movement, and wide scale movement at that.

Field Service Regulations Volume II says "The object of operation orders is to bring about a course of action in accordance with the intentions of the commander and with full co-operation between all arms and services." It is important, therefore, that the intentions of the commander should be readily grasped by the recipient of the order. The intention paragraph as it now stands is of little help as it is kept so concise that it gives no clear picture of what the commander really intends to do.

"I Div will secure the high ground south of the TEST up to the line X—Y" is an example of the intention paragraph as at present written. This, however, merely gives the divisional objective and gives no indication as to how the divisional commander intends to secure it. In order to arrive at his plan one has to study the method paragraph, and possibly also the information paragraph, with the greatest care. This forms a sort of jig-saw puzzle which has to be laboriously pieced together before the plan of attack is disclosed. It was workable during the last war for the reasons already given; but in the complicated operations of future warfare it cannot be expected to produce the close co-operation between all arms and the intelligent initiative of junior commanders that is essential to success.

It is necessary, therefore, that the commander's plan should appear as a whole picture before the detailed orders are given for the pieces that make up that picture (infantry, artillery, armoured fighting vehicles, smoke, gas, anti-tank and anti-aircraft defence, etc.). In short, the recipient should be given the solution to the puzzle before he is given the pieces which compose it.

Where this disclosure of the commander's plan should appear, is really a matter of detail. At first sight the intention paragraph appears to be the place for it. This paragraph must, however, remain concise and decisive. Not, be it noted, so that it may impress upon the troops the will and determination of the commander: if he has not already impressed this upon his command by his personality he cannot do so in a short paragraph in operation orders. It must be concise and decisive so that the commander himself can know exactly what his intention is. If

he cannot express it concisely and decisively he may be sure that his own mind is not clear. The intention paragraph is, therefore, framed as much for the benefit of the issuer of the order as for the recipient.

On the other hand, the present tendency rigidly to exclude anything that savours of method from the intention paragraph, is unwarrantable.

"I Div will secure the high ground South of the TEST by enveloping the enemy's Eastern flank."

One can almost see the blue pencil scoring out the last six words! And yet, may not they express exactly what the commander's intention is?

A more suitable place for the plan would be in the method paragraph, but this is also open to objection. We are accustomed to the method paragraph containing the definite orders to the various components of the force, and the conditions under which these formal orders may be departed from are clearly laid down and well understood. It would be a pity to include in this paragraph anything indefinite such as the description of the plan.

It is, therefore, suggested that an extra paragraph called "Plan" should be added immediately after the intention paragraph. This would be a repetition of the plan arrived at in the appreciation and would normally be drafted by the commander. Then would follow the method, administrative and inter-communication paragraphs which would be drafted by the staff to put the plan into execution. For example, if "The left flank of the attack will be covered by smoke" appeared in the plan paragraph "I Fd. Regt. will put down a smoke screen on the line X—Y from Z + 10 till Z + 30" would appear in the method paragraph.

It will be readily apparent that the relative length and importance of the plan and method paragraphs will vary according to the conditions and type of operation. When situations are straightforward such as in an attack on a well-defined position the plan paragraph may practically disappear and the method paragraph be full and elaborate as it was in the last war. When situations are indefinite and obscure the plan paragraph may be long and elaborate and the method paragraph short. The orders will then be more in the nature of operation instructions. Thus the rigidity and formalism of operation orders will be lessened and they will be more likely to fit the conditions of future warfare.

THE NEW MECHANICAL MAINTENANCE ORGANISATION IN INDIA

By Major M. Glover.

From April the 1st this year the responsibility for the provision and maintenance of all mechanical vehicles of the Army of India was transferred from the Quartermaster-General to the Master-General of the Ordnance. As this is one of the most important administrative changes in the Army of India in recent years and in view of the increasing mechanisation of the Army, a description of the new organisation together with a brief account of the factors that affected its planning should be of interest.

The first mechanical vehicles introduced into the Army were for load carrying purposes, lorries, ambulances, staff cars. The Royal Indian Army Service Corps which was responsible for the transport arrangements of the Army, became also responsible for the provision and maintenance of these new vehicles. Subsequently, as vehicles for other purposes such as tanks and artillery tractors were introduced, the Royal Indian Army Service Corps took over a similar responsibility for their provision and maintenance.

The Royal Indian Army Service Corps maintenance organisation, which was the same in peace and war, consisted of three echelons:

Forward Light Repair Detachments (first line) which helped the artificers included in unit establishments in carrying out running repairs.

Mechanical Transport Workshop Companies (second line), which carried out to the extent possible in mobile workshops those repairs beyond the capacity of units: Royal Tank Corps and Royal Indian Army Service Corps load carrying units had second line workshops included in their establishments.

Heavy Repair Shops (third line) where all major overhauls and repairs were carried out.

From early times the Ordnance, now the Indian Army Ordnance Corps, have been responsible for the provision and maintenance of armaments and ordnance stores. The Indian

Army Ordnance Corps maintenance organisation in 1938 consisted of one echelon in peace and two echelons in war, namely, workshops in arsenals and depots (third line) and, in war only, second line Ordnance Mobile Workshops.

There were thus two parallel workshop organisations, one under the Quartermaster-General and one under the Master-General of the Ordnance, with a consequent duplication of technical personnel and machinery. There was some delay in repairing armoured fighting vehicles, artillery mechanical vehicles, etc., as the mechanical portions had to be repaired in Royal Indian Army Service Corps workshops, and armaments and instruments in Indian Army Ordnance Corps workshops: with the development of mechanisation this disadvantage would have increased proportionately.

The absence of any second line Ordnance repair organisation outside arsenals in peace entailed transportation charges and necessitated the maintenance of increased working stocks to cover periods during which repairable armaments and ordnance stores were non-effective. Moreover arsenals, owing to their being employed on second line repair work, were unable to carry out in full their proper function of third line repair, which had to be effected in ordnance factories. This again entailed transportation charges and prevented the factories carrying out in full their proper function of production.

With large scale mechanisation of the Army in view, it was decided that a reorganisation of the two workshop organisations was necessary. It was for consideration whether the Home system could be introduced in India. Briefly the Home system is that the Royal Army Service Corps is responsible for the provision and maintenance of all vehicles driven by Royal Army Service Corps personnel and the Royal Army Ordnance Corps is responsible for all other vehicles. After full consideration of the problem it was decided that the Home system was an extravagant one for India and that a new organisation should be introduced to include the provision and maintenance arrangements of all mechanical vehicles, armaments and ordnance stores both in peace and war under the control of the Master-General of the Ordnance.

In formulating the new organisation the following premises were accepted:

(*a*) For the supply and maintenance of the army in the field there were to be three echelons, first, second and third line in peace and war.

(*b*) All the technical officers and artificers in the detachments attached to units and in the second and third line repair echelons were to be controlled by one corps, namely, the Indian Army Ordnance Corps. This necessitated the formation of 'mechanical engineering' lists in addition to the existing 'stores' lists for all categories of personnel in the Indian Army Ordnance Corps and the transfer of all technical personnel from the Royal Indian Army Service Corps to the Indian Army Ordnance Corps.

(*c*) All repairs were to be carried out as far forward as possible, no vehicle being evacuated unless absolutely necessary. This presupposed the extension of the unit assembly system for the replacement of spare parts to units. The unit assembly system by which assemblies of such parts as engines and back axles are sent forward complete from third line workshops for fitting into vehicles, was introduced with great success by the Royal Indian Army Service Corps and has considerably reduced the number of vehicles to be evacuated.

(*d*) In the past there has been a tendency for the responsibility for the mechanical efficiency of the vehicles of a unit to be passed on by the commander to his technical subordinates. With the increased mechanisation of the Army this can be accepted no longer and in future the commander of a unit will be responsible for the mechanical efficiency of his vehicles as he has been in the past for the condition and efficiency of his animals. "Vehicle mastership" has replaced "horse mastership."

(*e*) With the slow programme of mechanisation of units, second line workshops had been raised on a unit basis: moreover Royal Tank Corps and Royal Indian Army Service Corps load carrying units had their own second line workshops included in their establishments. The result had been that in certain stations second line maintenance was not concentrated. It was decided that, for reasons of economy, second line workshops would be on an area basis and concentrated in stations in peace on the lines of a station garage. The Royal Indian Army Service Corps were about to introduce

this system, when the decision was made to amalgamate the two workshop organisations.

(*f*) For the purpose of calculating the requirements of personnel and workshops in the various echelons, all vehicles and armaments are reduced to the common denominator of a 'lorry unit': for example a 30 cwt. lorry is 1, a light tank or armoured car 2, an artillery tractor $1\frac{1}{2}$, a motor cycle or trailer 1/5.

A brief description of the functions of the three echelons, together with general details of the establishments of the various units and how they were arrived at, is given in the following paragraphs:

For first line maintenance, which may be summarised as running repairs, it is estimated that one trained artificer is required for every ten lorry units. It is hoped that fifty per cent. of first line artificers will be unit personnel and fifty per cent. attached from the Indian Army Ordnance Corps. The unit personnel will be termed motor mechanics and will be men of the unit who have attained the necessary standard of mechanical efficiency to pass the required trade test: this arrangement provides encouragement for unit personnel to improve their technical knowledge. Until such time as unit personnel attain the required standard, motor mechanics will be fitters attached from the Indian Army Ordnance Corps. The attached Indian Army Ordnance Corps personnel will assist the unit personnel and will thus help to develop what may be termed the mechanical education of the unit: they will be given the same title as at Home, a Light Aid Detachment. Light Aid Detachments will be provided for all major mechanical units and formations, namely, cavalry light tank and armoured regiments, field artillery regiments, infantry brigades, load carrying sections. Light Aid Detachments are entirely under the control of the unit commander and function in a similar manner to the veterinary officer and armourer. Personnel and vehicles have been allotted so as to be able to deal with any detachments that may be made in accordance with the normal rôle of the unit or formation.

For second line maintenance, which may be summarised as repairs possible in a mobile workshop but beyond the capacity of the unit personnel, including the fitting of major unit assemblies and recovery work, Ordnance Workshop Companies are provided. (The Home organisation of an Army Field Workshop

organised to maintain a corps consisting of two divisions and corps troops is not suitable for India either in peace or war.) Each Ordnance Workshop Company consists of a headquarters and a number of workshop sections. The company headquarters contains the administrative personnel and certain specialist artificers who are only required in small numbers. Each workshop section is capable of maintaining one hundred and sixty lorry units: this is a good average for the numbers of lorry units in the majority of major mechanised units and formations. The actual number of artificers in each section is based on past experience of the Royal Army Service Corps and Royal Army Ordnance Corps at Home and of the Royal Indian Army Service Corps in India, a small extra percentage being included at present over the Home figures to compensate for the lower standard of mechanical skill in India. This increase may well be removed after further experience.

Company headquarters and sections are organised on a stationary and a mobile basis. Those whose war rôles are similar to their peace rôles, namely, the maintenance of internal security and frontier defence troops, are stationary units, and their workshop machinery is run off the local power, whereas mobile units are provided with workshop lorries. As far as possible a workshop section which maintains a mechanised unit in peace will do so in war: thus, if a mechanised field regiment in Lahore is sent to Waziristan, the workshop section in Lahore which maintains the field regiment in peace will be moved to Waziristan, where it will join the Waziristan Workshop Company. In certain stations where the number of vehicles to be maintained does not warrant the provision of a complete workshop section, a workshop section on a modified establishment is provided. Stationary sections on special establishments are provided at the ports: these also maintain coast defence units. In stations where there are only a few odd vehicles, maintenance is carried out on a civilian contract.

A small reserve of vehicles for immediate issue to units is held by second line workshops in peace, and by ordnance field depots in war.

For third line maintenance, which may be summarised as overhauls and repairs to vehicles and parts beyond the capacity of mobile workshops, the Heavy Repair Shops at Chaklala, Bannu, Quetta and Deolali have become Ordnance Depots. The former Heavy Repair Shops and the workshops in arsenals are

to be reorganised so that there will be the minimum of duplication and maximum of economy in the repair arrangements for vehicles, armaments and ordnance stores. Also certain production work previously done in Heavy Repair Shops such as body building and leather work, will be transferred to Ordnance factories.

The control of all Heavy Repair Shops and also of the Central Mechanical Transport Stores Depot, Vehicle Depot and Experimental Section at Chaklala was under the Deputy Director of Transport (Maintenance), whose office was at Chaklala. This control has now been transferred to the Director of Ordnance Services at Army Headquarters to bring the mechanical transport maintenance establishments into line with other Ordnance establishments. The former Heavy Repair Shops, Central Mechanical Transport Stores Depot and Vehicle Reserve Depot at Chaklala have been amalgamated to form Chaklala Ordnance Depot.

The Experimental Section at Chaklala has been absorbed into the new Inspectorate of Mechanical Transport, whose functions are similar to the Inspectorates of Guns and Ammunition. The former Technical Inspectorate of Mechanical Transport circles have been abolished and inspection of unit vehicles is now controlled by an Ordnance Mechanical Engineer who is attached to the Headquarters of each District.

The Directorate of Artillery at Army Headquarters has been replaced by a Directorate of Armaments and Mechanisation, the previous title being a misnomer. The duties of this directorate in respect of mechanical vehicles are similar to those carried out by the Directorate of Artillery in respect of artillery, small arms and ammunition. The Inspectorate of Mechanical Transport is controlled by the Directorate of Armaments and Mechanisation. Various technical appointments previously included in the Quartermaster-General's Branch at Army Headquarters have been created in the Ordnance Directorate at Army Headquarters and a Chief Ordnance Mechanical Engineer has been attached to the staff at each Command Headquarters to co-ordinate the workshop arrangements and inspection of unit vehicles within the Command.

The new organisation has made a most auspicious start. Within a few days the new units were functioning smoothly and well. The whole organisation appears to be on sound lines and capable of dealing with the great problem of maintaining a

modern mechanised army. There is hard work ahead for all ranks in the new organisation. Many of the personnel will have to adapt themselves to new tasks, which may seem strange at first but which will soon be mastered. For the rest the strength of the new organisation lies in its simplicity. A motor vehicle will in the future be treated like any other ordnance store and the highly technical personnel in the Royal Indian Army Service Corps and the Indian Army Ordnance Corps will be blended together into one whole for the general good of the Army.

THE EUROPEAN LONG SERVICE SOLDIER IN INDIA

By Decurion

As the question of the practicability of a permanent long service force of British soldiers in India has recently been mooted, a short account of the long service soldiers of Crown and Company who served under such conditions from 1758 to 1870 may be useful. I have taken the year 1758 as that of the formation of the Bengal European force, the last to be constituted, and that of 1870 as the end of long service in the whole British army.

The regular forces of the East India Company, European and Indian, were constituted on a presidency basis, each having its own staff and command, but all subject to the Commander-in-Chief in Bengal, who was always a Royal Army officer. Establishments varied, but pay and conditions of service were alike in that they were fixed by the Court of Directors.

At first the Company's European forces in each presidency consisted of one battalion of infantry and one of artillery, but these forces were steadily increased until they reached their maximum strength shortly before the mutiny. They then amounted to seventeen troops of horse artillery, forty-eight companies of bullock-drawn artillery and nine battalions of infantry, the total being about 15,500 men. To this must be added about 2,000 men serving in the manufacturing and ancillary services, on the subordinate staff of native regiments and in civil departments. In all there would usually be about 17,000 men on the strength of the Company's European army, all of them recruited from Great Britain or Ireland. For that purpose offices were opened at London, Dublin, Edinburgh, Bristol, Cork and Newry. The general depot was at Warley in Essex where recruits received enough elementary training to fit them for military duty in the event of attacks being made on the ships in which they sailed for the east. No large drafts were sent out yearly, as was the case with the Royal troops, every troop-ship taking as many as it could accommodate or as were available. A draft of less than thirty men was commanded by a sergeant, over that by an officer.

For some years the Company enlisted men for short terms of service only, extensions being resorted to if men were still wanted and were willing. But this system was soon abandoned, because so many men declined to renew their contracts when they had become acclimatised and most useful to the Company. Instead the terms of service pertaining to the Royal Army were adopted.

These were limited and unlimited engagements. A limited engagement was for ten—later for twelve—years in the first instance with the option of extension to complete the qualifying period for pension which was twenty-one years for an infantryman and twenty-four for a cavalryman. At first unlimited service meant as long as a man was physically fit for military duty; later it was modified to a free discharge after seventeen years' service, with liberty to continue on for pension, even if disabled or too old for duty. Pensions were of several kinds and a very large proportion of Company Soldiers qualified for them, the majority retiring in India where the terms were more favourable. Those who did so were transferred to the Veteran Companies as "in" or "out" pensioners, the latter residing anywhere they liked in the presidency from which they were pensioned and being permitted to take up civil employment.

Men were posted to the Veteran companies either direct or through the Invalids. There was one Veteran company in each presidency, invariably stationed in an old fortress of which the men were the garrison. Veterans received rations, quarters, clothing and 3/4d. a day pay. There was a fixed establishment for officers and N.C.O.s, but none for privates. N.C.O.s from regiments became privates on transfer to a Veteran company and took their turn for promotion as vacancies occurred in the fixed establishment. Officers posted to the Veterans retained their rank, vacancy or no vacancy, and lived where they liked.

Originally the only provision made by the Company for men disabled or superannuated in their service was the "in" and "out" pension in India. No pension was payable in England until Lord Clive, seeing the discredit brought on the Company by destitute officers and men in England, established a home pension fund by the donation of a large sum of money which was added to by the Company. Pensions varied. Artillery sergeants and gunners received 9d. and 6d. a day, respectively, increased to 1s. for sergeants and 9d. for gunners who had lost limbs. Men from other arms received $4\frac{3}{4}$d. a day only, irrespective of rank.

The Invalid companies provided for men temporarily or permanently unfit. If a man recovered, he was returned to his unit. If he did not recover, he was employed on any suitable work until he either became permanently unfit or qualified for pension. Men of the Invalid companies were treated in all respects just as serving soldiers, except that N.C.O.s on arrival reverted to the rank of private unless there were vacancies on the

establishment or they were employed on outside duties carrying non-commissioned rank.

The actual cash pay of the Company soldier was little more than that of the man in the Royal Army. But he drew free rations, then worth about three annas a day, could live out of barracks if he had a native wife and was subjected to less harsh discipline. The greatest attraction, however, of which recruiters made the most, was the prospect of staff or extra-regimental employment, which meant more pay, greater freedom and better prospects, and was open to any Company soldier of fair education. For those who preferred purely military duty the staff of native regiments was open. There were over two hundred riding masters and staff sergeants attached to the native artillery, cavalry and infantry of the Bengal army alone. There does not seem to have been any age-limit for service in the native infantry if tombstones are anything to go by. For example, there exists in the old cantonment cemetery at Lahore a stone to the memory of Sergeant-Major R. Campbell, who died serving at the age of sixty-nine in May 1857. He had served for fifty years. The old cemeteries of the Veteran and Invalid companies at Chunar and Buxar show six centenarians and a goodly number between seventy and ninety years of age. If many died young, many survived to a ripe old age.

Here we may leave the Company soldier for his comrade in the Royal Army.

Until 1781 the regiments of the regular army serving in India were not part of the permanent garrison, being lent only for a particular campaign or undertaking on the completion of which they returned home, usually for disbandment. All, however, would leave behind a few officers and a number of men who had volunteered for the Company's European service. In view of their ever extending obligations the directors of the Company decided in 1780 to approach the Government in London with a view to obtaining the services of Royal Army regiments for periods of at least twenty years, at the same time undertaking themselves to maintain a limited number of European battalions and sufficient artillery for both Royal and Company troops. It was arranged that the British Government should keep their regiments at full strength, all costs from the date of leaving England in the case of existing regiments, with £10,000 extra to meet the charges of newly raised units, being paid by the Company, which had also to meet non-effective charges for pensions. The pay of soldiers in the service of the Crown

was to be increased to Company level. But each army was to be entirely independent of the other, having its own general and staff in each presidency. Many senior officers of the Company's service were given honorary commissions in the Royal Army to enable them to command a mixed force. Officers could not exchange, nor were time-expired men of one army allowed to enlist in the other. The only exceptions were when the Company was short of staff-sergeants in which case sergeants of the Royal Army were granted a free discharge to enable them to re-enlist in the Company's service. No finer soldiers ever came to India than those of the regiments that arrived during the last decades of the eighteenth century and remained until about 1805. All were unlimited service men, and we have contemporary testimony to the fact that many never left India from the time they arrived until they returned with their regiments after Bhurtpore.

It should be understood that one concession which made service in India popular was that, from 1788, all British soldiers serving in the East and West Indies were allowed to count two years' service as three towards pension. The concession was abolished in 1828 because it was found that a man could draw a larger sum as pension after long service in the Indies than he had ever drawn as pay. The concession never applied to men who had engaged for limited service and who left the colours on completion of their first period. A reference to a list of twenty-one Chelsea out-pensioners, permitted to remain in India on the ground that they had been there so long that it would be dangerous for them to return to England, discloses that the average length of service in India was seventeen years and nine months, equivalent to twenty-six years for pension purposes. Of the men shown on this list all but two had seen service in Nepal, the Pindari campaign and at Bhurtpore. Only four are shown as worn out as the result of bad heart, weak lungs or the effect of wounds. Such examples go to show that even then soldiers in the ranks could serve long years in India without ill effects. As to officers, in the combined Army Lists of the presidencies for 1858 we find no less than two hundred and forty retired and living in India, the majority having come out between 1808 and 1825.

The mortality amongst the Company's soldiers seems to have been even lower and their general health better than that of Royal Army men, due probably to the fact that they arrived in small batches and were absorbed among others who had been out a long time and understood conditions in India. The Company

was a commercial concern and had to take care of its soldiers. Their barracks were better built, and in 1840 the hill-stations at Sabathu and Dagshai were set apart for the Company's Bengal regiments as permanent stations. Convalescent depots were formed at Darjeeling and Kasauli, mainly for men of the artillery who shared them with invalids of the Royal Army. But the value of these health resorts was impaired by the long distances sick men had to travel in country carts and it was not until the coming of the railway that hill-stations became really useful.

Useful particulars concerning the health of men of the Royal Army are to be found in a series of articles published in the *Calcutta Review* of 1851. Bengal was the most unhealthy of the presidencies, its soldier-mortality being 7.3 per cent. compared with 3.5 per cent. in Madras and 5.2 per cent. in Bombay.

The percentages of deaths in Bengal amongst Europeans were 2.5 for civilians, 2.75 for officers, and 7.3 for soldiers. The excessive mortality amongst the soldiers was attributed to cholera, malaria, dysentery, alcoholic excess, badly designed barracks in unsanitary surroundings, crowded rooms, an unvarying diet of tough and badly cooked beef usually accompanied only by rice and potatoes and lack of outdoor or indoor recreation conducive to healthy conditions of mind and body.

The only libraries were in part of a rudely furnished barrack-room, lit by a dim oil lamp at night and without punkahs in the daytime. The books were mostly regimental histories supplied by government and old collections discarded by home going officers as not worth selling. There were no newspapers, these being expensive luxuries beyond the reach of soldiers. The one outdoor game was cricket which was played for a few hours a day during the cooler months and then only by a few. True, there was also handball played in the courts built by order of Sir Charles Napier in 1844, but, there also, only four at a time could play. Only the canteen was left.

It was particularly stressed by the medical officers that regiments on service or long on the march were far more healthy than those in barracks and they attributed the excessive sickness and mortality amongst the latter to lack of occupation inducing a lassitude and listlessness that made men peculiarly susceptible to sickness and epidemics of cholera. All these several causes are now practically non-existent. Cholera is almost unknown to British troops; malaria has been conquered; the sanitation of cantonments is good; the soldier drinks little or no liquor; he plays outdoor games all the year round; there are fine institutes

and libraries better than any working man's club in England and the food is plentiful, varied, and well cooked. Indeed the pendulum seems to have swung too far in the other direction and it may be that men will be too soft to stand a frontier campaign, cut off from any but the barest supplies as of old.

From the inception of the scheme, the Government of India objected to the short service system. The main arguments put forward were that India had no interest in a reserve the object of which was to provide masses of men for warfare on continental lines, that the hardy, seasoned long service soldier would be replaced by a much younger man of a lower physical standard, that, being less mature, the short service man would lack the stolid and stubborn endurance of the older and that, above all, the country would have to pay nearly three times as much for an inferior article.

The average long service man left India between the ages of thirty-two and forty, the latter if re-engaged. The short service man would go at twenty-six, just when he was becoming acclimatised and experienced. That there was some justification for the Indian Government's forebodings as to the inferior quality of the new soldier was seen in Zululand and Afghanistan where regrettable incidents in which young battalions were concerned occurred. They were hushed up as far as possible, but even so some of those in South Africa leaked out and Kipling alludes to others in his soldier tales of Afghanistan, of which proof also exists in unpublished despatches. But much of this was due to lack of suitable leaders. The long service soldier led himself in many battles and won them when leadership had failed or did not exist. The new style of soldier and the old style of officer often failed each other and took many years to gain mutual confidence and understanding. However, the prejudices and preferences of the Government of India had to give way to the needs of the army in general, for, without extending the short service system to troops in this country, a large reserve at home was impossible.

The most that the Government of India could obtain when short service was introduced was the inclusion of a clause permitting the retention of a man serving abroad for one year over his normal term of colour service. The clause saved India some expense and reduced the number of recruits which the home government had to find. The extension in 1881 of the term of colour service from six years to seven further eased the position.

From the start, however, there was difficulty in obtaining the additional numbers required, and by the time of the Zulu War the shortage was so acute that drafts of under-age men who had only fired a recruit's course had to be sent to South Africa. The shortage continued throughout the eighties and nineties. Nearly every year men due for the reserve were offered bounties to extend their colour service by one or more years. The usual amount was Rs. 60 for each year extended and the numbers required ranged between one thousand and three thousand. There was seldom any trouble about obtaining the men as the bounty was irresistible to most, in days when few picked up more than Rs. 3 a week. To conclude, it must be realised that the reintroduction of a long service army of British soldiers permanently located in India would be a very different proposition to what it once was. The young men of the working classes, from whom the army must necessarily draw its recruits, are no longer willing to accept exile for twelve or twenty years for a bare living. The introduction of long service in India to-day would have to be accompanied by inducements on a scale which other Englishmen serving in India enjoy in the way of pay, furlough and pension.

"EFFICIENCY, WHAT CRIMES ARE COMMITTED IN THY NAME!"

OR

MILITARY DISCIPLINE—CAN ANYTHING BE DONE TO STOP IT?"

By Gingerbir Pun.

I had a nightmare the other night. I think it was after a Sunday lunch at the club, where I had two helpings of prawn curry. The dream was most vivid, seemed to go on all night and every minute detail was imprinted on my mind so deeply that when I came-to the next morning, not realising I was in my own room, I shouted to my bearer to go away and covered my head up with the bed clothes. When my brain commenced to register properly, I leapt out of bed and rushed to my typewriter in order to put the story into print before I had time to forget.

Here it is:

For no apparent reason I was suddenly smitten with a bout of very high fever. In spite of all the aspirin I swallowed, the fever got worse. Feeling terribly ill, I managed to telephone for a doctor. He seemed to arrive before I was back in bed, took one look at me and hurried off saying he would send an ambulance for me. This vehicle must have travelled at a much greater speed than the regulation one of twenty-five miles per hour as I had hardly swallowed some more aspirin when I was seized by a brace of R.A.M.C. orderlies, thrust into a stretcher and slid into the ambulance. During the drive all I can remember are the blankets with which I was covered. They were made of coir matting and, I should think, in the local jail. I still bear the marks of quite serious scratches on all parts of my body that were not covered by my silk pyjamas.

I don't remember very much about that afternoon in hospital, as I had high fever, a splitting headache and my body ached as if I had been on the rack. I could not sleep and nobody came to see me. After years had passed, night came. I heard the whole gamut of bugle-calls from "Retreat" to "Lights Out." I then started to count the hourly gongs and in between clock hours amused myself by counting sheep-jumping stiles. There were millions of sheep and they all jumped beautifully. The last gong I heard was at 4 a.m. when I must have fallen asleep.

The fun and games now began. I felt I had been asleep for about two minutes when an electric searchlight was turned on to my face; I woke with a start; a cold clammy hand seized my wrist and something was pushed into my mouth. I realised that my pulse and temperature were being recorded. When this was over I looked at my watch. It was half-past-five and pitch dark outside. Early morning tea was produced. I always wondered why it was called "early morning tea" and not just tea. I know now. I asked what the hurry was. I was told that "handing over" took place at 7 a.m. I did not know what was going to be handed over unless it was my body, but ventured to suggest that there was still an hour-and-a-half to go. This did not go down very well and I was told that there was a lot to be done. It was all too true—there was—but little knowing I turned over and went off to sleep. Again I was woken up by the searchlight and saw a basin, soap, sponge, towel, etc., being arrayed as if for kit inspection. It was still pitch dark outside and as cold as charity inside. I looked at my watch for the second time. It was 6 a.m. Still feeling terribly ill, as one only can in a bad dream, I sat up in bed and went through the motions of washing. I refused to shave and sank back into a sleeping position. I must have been unconscious for a few minutes when the searchlights were turned on again and I was confronted by two bearded Indians. I asked what was going to happen. They said they were going to make the fire. This was at 6-30 a.m. The coal must have been too big to fit into the grate as they proceeded to break it up with hammers. During the operation they must have dented the coal-scuttle, because they began to repair it. Before the fire was properly alight, the searchlights were turned off as the coal-heavers retired; but only for a moment, being turned on again by a sweeper who began to sweep out the room. Having done his job—I thought very quickly—he turned off the lights and disappeared—I suppose to some other unfortunates' room. I made another attempt to go to sleep, but the sweeper must have told the coal-miners that the fire was out, because they came back and began to beat it into activity, till I begged them to desist and go away. I then turned the lights out myself. I must have been reported for fouling by the firemen, because they came back again with the orderly, who had been so anxious to hand me over at 7 a.m., and it was nearly time. I felt that they were too many for me and covered my head with the sheet. After all this I must have got to sleep somehow as I was finally woken at 7-30 to find a large breakfast being put on the bed-side table. I couldn't eat

anything, nor could I go to sleep. I just lay wondering what I had done to deserve all this attention. Just before 8 a.m. a very nice and kind sister came in to ask if I had had a good night. I smiled at her; she was disappointed to find I had no appetite.

By 8 a.m. everything that could have been done appeared to have been done, so I settled down to make a final attempt to go to sleep. It was too bad, and quite useless. The O.G.P.U. were still at it, and were determined to carry on with the third degree. A senior Warrant Officer arrived to check certain statements I had made the previous evening regarding my religion and my length of service in India. I satisfied him to the best of my ability, but my answers must have been evasive or contradictory, as he came back again after about twenty minutes and took everything down in writing. I was not asked to sign a statement, nor was I warned that anything I said would be used as evidence against me. By now I was in quite a nervous condition and could easily have been intimidated, but no actual force was used. I realised that they were trying to break down my will-power; scenes I had witnessed of American police methods on the films flashed through my mind and I knew that any form of resistance would be fatal. So once more I covered my face with the blankets, in spite of their extreme roughness, and tried to seek oblivion in sleep. About this time—about 9 a.m.—the authorities must have run out of normal reliefs, because I was accosted by a Pathan newspaper-seller. This individual must have a free pass, or contract, to sell papers and very dirty magazines to the sick and dying. Anyhow I could not co-operate as I had no money, so waved him out of the room. The next turn was, I feel, meant to be a funny one. A Bhisti arrived with a large pail and brush and proceeded to whitewash the fireplace. He did this quite efficiently, although I must confess I did not give the exercise my usual close attention. Unfortunately he splashed the whitewash about slightly and thus put the fire out. He was, however, thoughtful enough to inform the coal-heavers, who returned to the attack with their coal-scuttle and hammers.

From about 10 a.m. they really got a move on. Feverish preparations commenced which I guessed must be leading up to the imminent arrival of the doctor. A lot of people of various denominations came in at odd intervals to warn me that he would shortly arrive.

I wondered if I was meant to stand to attention at the foot of my bed with my fever chart and diet sheet in my hand. I rolled over and turned my back to the door and shut my eyes.

Numerous people kept looking into the room, opening and shutting the door. I suppose some came in to see if I was asleep and others to see if I was still alive. I heard verbal orders being given *re* the making up of my bed. The time of start was not detailed, so the bed was never made up, but later on a sister came in and spread the white cover neatly over the top, which must have made it look quite tidy. I still feigned sleep. Just before 11 a.m. I heard the tramp of the marching feet of a large body of troops down the passage outside. I wondered if it was the firing squad at last. It was not. The doctor, followed by as many as could fit into the room, entered. The "star" had arrived. I was delighted to see him. I had been kept awake since 5-30 a.m. for this chap, and they had made certain that I would not be asleep when he arrived. I sat up in bed and clapped; then woke up with a start and a shout, as mentioned in the opening paragraph of this quite impossible story.

ON EXCHANGE IN AUSTRALIA

By Major (Local Lieut.-Colonel) C. C. Deakin, 2nd Punjab Regiment

It is for those officers stationed in India, who are contemplating a visit to Australia that this article is written, with the object of placing before them the many attractions of this country, rather than a description of the Defence Forces of Australia or the duties of an Indian Army Exchange Officer.

To those, who have had a surfeit of hill stations or of big game shooting in India, a visit to Australia does provide a most pleasant change. The hospitality of the average Australian is too well known to need special mention, and those who do decide to spend their two months' privilege leave on a trip to this country can be assured of a most sincere welcome both from the members of the services and from the civilians. Having been stationed in New South Wales only, the writer's impressions are those chiefly of that state, tinged with impressions formed by visits to the other states. From the Imperial point of view, visits by officers stationed in India must react favourably upon relations between England and Australia and thus, apart from an enjoyable leave, the more officers who visit Australia, the better will be the understanding between the Mother Country and one of the Dominions.

The Australian has an immense pride in his country and he has every justification for this pride. It may or may not strike a visitor that the Australian is over inclined to emphasise the achievements of his country, but it is suggested that those who do take this point of view incline to the intolerant, and lack the knowledge of the progress that has been made by Australia in a comparatively short time. It was only last year that Sydney celebrated its sesqui-centenary, and to-day it is the third biggest city with a white population, and the fourth port—in annual shipping tonnage—in the British Empire. It must at least be admitted that this is in the nature of a definite accomplishment.

The last port of call the visitor strikes is Sydney, unless he wishes to continue the journey to Brisbane, the capital of Queensland, and it is in Sydney, of course, that one sees the harbour of which the New South Welchman is so justly proud. One's first impression is of low hills bordering the harbour with grey-green bush and of red roofs showing above the trees; of little bays like golden half-moons of sand; of scattered islands; and of the rocky

harshness of the headlands that guard the harbour. As one moves further in one becomes aware of roofs as thick as those of a London suburb extending in all directions; of spacious houses and gay gardens stretching down to the water's edge; of tall buildings resembling a miniature Manhattan jagging the skyline, and the sun glittering back from a thousand windows. Fascinating, too, are the ferry-boats like green and black toys hurrying to and fro and white-sailed yachts scudding before the breeze. Truly a sight of gay beauty and one that must impress even the least responsive. And, ultimately, the famous Harbour Bridge which, whilst striking the more prosaic as a wonderful feat of engineering, will not offend the taste of the most æsthetic.

It is in Sydney that the visitor will spend most of his time, unless he either disembarks at one of the intervening ports or goes on one of the several cruises arranged by the P. & O. and Orient Lines. It will be to his interest, therefore, to consider how he can make the best use of his time in this city. There is golf on some of the best golf courses that one could desire; sailing in the harbour; surfing on the many beaches; tennis and racing, whilst, if one is lucky, one may witness international Rugby football—All-Blacks and Springboks against Australia—and, of course, test cricket, if it happens to be a year in which the M.C.C. is touring, otherwise inter-State cricket which, needless to say, is of a high standard. By going further afield there is ski-ing at Kosciusko in New South Wales and Mount Buffalo in Victoria, whilst by going still further inland there is what many Australians will tell you is the "real Australia" to be seen. Which of the above the visitor will see depends on the season in which the visit is made. It is unnecessary to remind intending visitors that, as the seasons are reversed in Australia, the Army officer on leave will in all probability see Australia during the winter months, from April to October. This means he will miss the surfing which is one of the favourite sports during summer. Practically everyone surfs and there are dozens of surfing beaches all along the coast of New South Wales. The shark menace is always present, and at first, having heard much about it, and occasionally having read of shark fatalities, the newcomer may feel a little nervous. However, very few of the many thousands one sees surfing seem to worry about it, so one naturally very quickly loses one's fear. In any case, on the more crowded beaches there are shark patrols and aeroplane patrols which give warning of the approach of a shark—the ground patrols by ringing a bell and the aeroplane by firing a Very light. When this happens the rush to the shore is almost

indecent and, whilst the writer claims no prowess as a surfer, he takes great pride in his speed to the shore on such occasions. This, however, is a rare occurrence and, considering the millions that surf during the summer, there are remarkably few casualties. Each beach has its surf club and life savers who do excellent and entirely voluntary work. The physique of these life savers strikes one very forcibly and the number of lives they save during a season is considerable. This is partly due to the remarkable fact that many of the surfers themselves cannot swim and when undercurrents—which are not infrequent—carry them out of their depth, they have to be rescued by the attendant life saving squad.

Golf, of course, is played the whole year round and those who are even mildly enthusiastic about this game should bring their golf clubs. On Australian courses the nineteenth is worth the whole remaining eighteen, especially if one is an overseas visitor. For those who look upon this game as one to be treated with the utmost seriousness there are first-class courses in all the ports, whilst the beauty of some on the shores of Sydney harbour will soothe the tempers of even the most irascible golfers. Moreover, the general rule is for the clubs to extend a most cordial welcome to English visitors.

There are some excellent race courses out here and some of the big meetings are really worth attending. The quality and stamp of Australian horses is well known in India and one can thus realise that racing is of a high standard. The Melbourne Cup, held on the first Tuesday of November, is the premier race in Australia and is indeed a great social and high class racing event. It is closely followed in importance by the Australian Jockey Club Derby, held during the Spring Meeting—October—in Sydney. These two Races only are mentioned but racing goes on throughout the year and the enthusiasm and interest of all classes in this form of sport is remarkable. Starting price betting, which has recently been frowned upon by the state authorities, is carried out very extensively and it is a goodly proportion of the Australian public which has its daily bet. Peter Pan is a well-known racehorse out here, and it was amusing to hear at a military children's party the remarks of a boy of eight, the son of a sergeant-major. An impromptu little play was being arranged and the boy was selected as Peter Pan. After some preliminary instruction the organiser said to the boy: "Now, who was Peter Pan?" to which the small boy replied "A pretty good racehorse." It was quite obvious what was the chief topic of conversation in that household.

There is polo of a high standard, as instanced by the Ashton brothers' performance in England the summer before last. During the winter months it is played, amongst other places, at Kyeemagh on the outskirts of Sydney. The visitor, however, is not likely to have an opportunity of playing unless he is in the fortunate position of having some very close friends amongst the owners of polo ponies. Nevertheless there is always the opportunity of witnessing it and during the polo tournament in mid-winter a visit is well worth while.

Winter sports are available in many places in New South Wales and Victoria, the two main snow-fields, as already mentioned, being Kosciusko and Mount Buffalo. From the social and holiday point of view, these two places are the most popular and have modern hotel accommodation. It is, however, understood that for the more experienced and keener skier and for those for whom the social aspect has not such an appeal, the lesser known snow-fields provide better sport if one is prepared to rough it and camp in huts. The advantage of going to one of the more frequented spots is that all sports kit, with the exception of clothes and skins, can be hired at the hotels.

The greatest pleasure of all in Australia is, in the writer's opinion, to visit a station "up-country." In the short time available on two months' leave this, unfortunately, may not be possible for all. If, however, a fellow passenger does happen to invite you to his or a friend's station, the advice is "Accept promptly." One will find charming people, delightful homesteads and interesting surroundings, coupled with a generous hospitality seldom equalled elsewhere. With plenty of riding and a healthy outdoor life, this is the Australia which one, or at least the writer, always pictured and not the huge modern cities of Sydney and Melbourne. If one happens to strike shearing time while visiting a station, the shearing sheds are a great source of interest. They are usually situated a little distance from the homestead, together with the attendant living accommodation for the shearing gangs, who move round from station to station. This accommodation, incidentally, has to be up to certain standards as laid down by the Shearers' Union, and considering each is only occupied for a few weeks in the year, the standard, to the outsider, seems to be very high. Showers, electric light, roomy cubicles, dining rooms, modern conveniences, etc., all have to be installed. In the shed itself is a row of stands, with pens opposite, in which the unshorn sheep await their turn, with engines, wool presses and wool classing tables and bins, the whole scene being one of almost mad activity.

The manner in which a dignified, heavily woolled Merino changes into a naked, nervous looking animal shorn both of its dignity and wool, is somehow pathetic but at the same time comical. The shearers use electric clippers and the speed at which this transformation is effected is truly amazing. These men each average about one hundred and seventy-five sheep a day and the "Ringer" is the man who shears the most sheep during the shearing. The Champion Ringer of Australia holds the record at something over three hundred a day. It is understood that these men make a considerable amount of money at this work, and whilst some go off on a "binge" at the end of the shearing season, others save, and it is said that eventually many have themselves become property owners.

If the visitor happens to be at a station when picnic races are being held in the vicinity, he is indeed lucky. Picnic race clubs are private clubs formed by a number of station owners and are held in various places from time to time. All the station owners and their friends within a radius of a hundred miles or so gather at the meeting. And what an atmosphere of good comradeship, geniality, light-heartedness and hospitality prevails! In some respects resembling a hunt point-to-point in England, yet somehow quite different, it is a wonderful experience. It is as if the good spirits of the people are able to lift one out of one's normal self. Grassfed horses, good and indifferent, are mounted by amateur jockeys of the same category, but all apparently are imbued with the same spirit; the spirit either to win the race or win a good time. The picnic ball that follows in the nearest township, or sometimes in a hall built near the course, is just a riot of enjoyment. With the few hotels packed out, the novelty of six or eight changing in a room—usually of one sex—and of two or three in a bath—always of one sex—prepares one for the night to come. Gone are the days of horses and buggies, and with them the tales of the past, such as the interchanging of horses, with many a driver waking up in full daylight at his friend's homestead many miles from his own, and recognising that neither the horse nor the homestead is his; or the harnessing up of horses and buggies with a post and rails fence in between, and the irate, but perfectly sober driver, laying on because his "cow" of a horse would not pull. Although the car has taken the place of the horse and buggy, there still remain the high spirits that prompted such practical jokes and still many avenues for exploiting them, and for one who is immune, by the laws of hospitality, from such jokes, it is all highly amusing.

Those who come from the frontier or other similar localities, lacking social amenities, might well feel inclined to indulge in mild nocturnal adventures in addition to sight-seeing and recreation by day. Articles by, or interviews with, visitors from overseas have been seen in the press in which it has been stated that the cities of Australia are completely dead at night. This has not been the experience of the writer, and may have been engendered in the minds of some overseas visitors by the fact that all hotel bars close at 6 p.m. For those who might feel disheartened, let them be gladdened by the news that they open at 6 a.m.! Alcoholic refreshments are obtainable after 6 p.m. The writer's knowledge of the law regarding this question is far from perfect, but the general idea seems to be that if ordered before 6 p.m. it can be consumed in hotels and restaurants at any hour. It is believed that there are ways and means of overcoming even this restriction. As regards Sydney, besides one very good theatre, one good vaudeville theatre and scores of super-cinemas, there are a number of dancing places, some high and some not so high, where one may dance to the small hours of the morning. One or two are of the "Cafe-de-Paris" type with correspondingly high charges. If the visitor at 2 or 3 a.m. still feels that the night is young, there are the night clubs, entry into which can only be effected by a member, but here again ways and means can be found. There, if he is prepared to risk the thrill of a raid, he may stay until the dawn.

Lest some readers might think that the life of an exchange officer in Australia is one long round of pleasure, it would be as well briefly to mention the army and the work connected therewith, otherwise Army Headquarters, India, may be besieged with applicants for the one appointment of exchange officer in this country! It is not intended to give the detailed organisation of the Australian military forces. For those interested, a reference to the British Army List will give details. Broadly speaking, Australia is divided into certain military districts within which are the equivalent of five divisions and two cavalry divisions, as field army formations. These formations are, in peace, only skeleton formations, in fact until recently the total number of troops in Australia was only 35,000. This number is now being increased to a total of 70,000. These field army formations consist of militia officers and men, the equivalent of the Territorial Army in England. Militia units are enlisted on a voluntary basis, compulsory training having been suspended in 1929. There are no permanent forces in the true sense of the word, except a few

garrison gunners and sappers for the skeleton manning of the coast fortresses, which, by the way, are up-to-date and modern. Apart from this, and a new force of 250 at present being raised for the defence of Darwin, and known as the Darwin Mobile Force, the permanent strength consists of the Australian Staff Corps of about 250 officers and the Australian Instructional Corps of about 400 Quartermasters and Warrant Officers. To this tiny band of regular officers and warrant officers is given the task of training and administering the large force of Militia already mentioned. Its leisure hours to enjoy the many pleasures available, some of which have been mentioned above, are therefore somewhat limited. It is only the remarkable power of the average Australian to adapt himself to military training and his natural military instincts that make it possible to reach even a reasonable stage of efficiency. The efficiency they do reach is really amazing in view of the limited time available for training. Until quite recently they were only required to do six days' continuous camp training and six days' home training during the year. Of course many, in fact the majority, did a good deal more than this in voluntary week-end bivouacs, courses and tactical exercises without troops. This period has now been extended to twelve days' continuous camp training and six days' home training. As has already been stated, the Australian seems to be a natural soldier and with his keenness and enthusiasm it is surprising how much he learns during the few days of the year he devotes to military pursuits. Many of the senior officers have, of course, war service which holds them in good stead, but the majority of the junior officers and other ranks gain their military knowledge in the small space of time already mentioned. It is recognised that the permanent staff is sadly lacking in numbers and this is partly due to the short-sighted policy during the depression of reducing this staff and taking few, if any, new entrants during that period. Permanent staffs cannot be raised in a day and now the Australian military forces are suffering from this lack of foresight. Overworked individuals in any profession cannot give of their best and this applies equally to the profession of arms. Since the recent crisis, the Government has realised that the land forces must be strengthened, and it is hoped that from now onwards a gradual improvement, by the increase of permanent staff, which will be reflected in the increased efficiency of the Militia Army, will take place.

Nothing has yet been said as to the manner in which the visitor travels to Australia, what his probable expenses will be, where he may stay and the numerous other points on which an

intending visitor seeks information. For fuller information as to travel in Australia one can do no better than apply to the various Tourist Bureaux out here or the Australian Tourist Bureau recently established in Bombay. As to transportation, most people know that the P. & O. sail fortnightly from Bombay and the Orient on alternate fortnights from Colombo, and that the round trip takes two months. This gives about twenty-six days in various ports in Australia, of which about fourteen days can be spent continuously in Sydney.

Expense, of course, depends on the individual but for the thrifty no more need be spent than the actual fare and cost of living expenses at the port at which he decides to stay. But it can with safety be said that a great deal more value for money can be obtained out here than in a hill station in India, whilst the fact of always receiving twenty-five shillings in exchange for twenty has both a moral and material effect.

Where to stay, again depends on the taste of the individual. As far as Sydney is concerned, the most reasonable, combined with comfort and convenience, is the Imperial Service Club, where the committee and members are most hospitable and helpful. This club is affiliated with many clubs in India, but in any case it will always take in an officer from India, if he gives sufficient notice. It is understood that the Service clubs in the other capitals are equally hospitable. For those who may have more expensive tastes there is anything from a suite at the Australia Hotel to a luxurious furnished service flat.

To conclude, the officers of the Australian Staff Corps are always most pleased to meet overseas officers in their messes in each capital. They have all at some time or other served either in England or India, and are always anxious to renew old friendships or make new ones. A visiting officer is thus assured of a most cordial and sincere welcome when calling, and it is not necessary, as one writer of his experiences in Australia stated, for your "head to be a strong one," if your inclinations do not lie in that direction.

THE CANTEEN CONTRACTORS' SYNDICATE. LTD.—ITS ORGANISATION AND FUNCTIONS IN PEACE AND ITS ROLE IN WAR

By Major A. M. Dore, R.I.A.S.C.

Foreword.—*The writer is indebted to Sir John Abercrombie,* M.C., *Managing Director, Canteen Contractors' Syndicate, Ltd., who very kindly supplied him with detailed notes for the following article.*

From time immemorial, armies going to war have been accompanied by camp-followers, sutlers and the like, who provided the troops with those comforts and luxuries that mean so much to them in moments of relaxation, and in no small degree contribute to the maintenance of their moral. Similarly, those same providers have been of service to the troops in their peace stations. But the day has long since gone by when these functions could be fulfilled by individuals working upon their own unaided resources. The Great War saw the end of such individual effort in Europe, and made obvious the necessity for a central organisation to operate canteens both in peace and war. Thus the N.A.A.F.I. came into being.

In India it was not until the North West Frontier campaign of 1919 was undertaken, that the old system of unit contractors, who had to rely upon their own supply arrangements for stocking canteens on active service, broke down. It was then decided to introduce a system on somewhat similar lines to the N.A.A.F.I. at home, and as an outcome of this the Army Canteen Board (India) was organised to operate in the Punjab and North West Frontier Province. After functioning for nearly six years the Army Canteen Board (India) organisation broke down from causes not material to the subject of this article. A decision was then taken to revert to the former system of unit contractors but with these important provisos:

(*a*) That all contractors employed by units in India should be members of and shareholders in a central organisation, designated the "Canteen Contractors' Syndicate, Ltd.," and

(*b*) that they should purchase solely from the Canteen Contractors' Syndicate, Ltd., all goods specified in its current price lists for exclusive sale in institutes and canteens for which they held contracts.

So the wholesale purchasing organisation, now widely known as the Canteen Contractors' Syndicate, Ltd., came into being.

In addition to taking up shares in the Syndicate, each contractor who secures a unit contract must conform to the current Institute Rules (India). Shares are allotted in accordance with a fixed scale laid down, and which ranges from two hundred and seventy shares in the case of a contractor to a British Infantry Battalion or Cavalry Regiment, down to a minimum of ten shares in the case of small units such as a British Military Hospital. Normally when unit reliefs take place, shares are transferred from one contractor to another, but when units proceed overseas without relief, the shares allocated to their contracts are disposed of under instructions of the Board of Directors of the Syndicate. All shares are transferred from one contractor-member to another at par, and no member has the right to sell, or otherwise dispose of, any shares he may hold.

The Canteen Contractors' Syndicate, Ltd., was formed and registered as a limited liability company under the Indian Companies Act, 1913, with an authorised capital of Rs. 25,00,000 consisting of 25,000 Ordinary Shares of Rs. 100 each: Twenty thousand one hundred and twenty shares have been subscribed but so far only Rs. 45 per share has been called, and the paid-up capital of the Company, therefore, stands at Rs. 9,05,400. Under agreement with the Governor-General, the Syndicate's dividends are limited to 6 per cent. per annum, and its reserve funds to a total of Rs. 3,00,000. So it will be seen that it is not allowed either to pay large dividends or to set aside large amounts to reserve. When the limit of reserve funds has been reached, all profits over and above the 6 per cent. for dividend are to be utilised for the reduction of prices of goods. Reserves now amount to Rs. 1,55,000.

The management of the affairs of the company is vested in a Managing Director appointed by the Governor-General. His salary is paid out of the Army Budget. He acts directly under the Quartermaster-General in India and there is a clause in the

agreement between the Governor-General and the Syndicate indemnifying the latter against any loss arising out of special emergency purchases of goods made by the Managing Director acting under the orders of the Quartermaster-General in India. In an emergency, therefore, the Managing Director will act in accordance with orders received from Army Headquarters, India, and will not have to consult the Board of Directors.

Government also has the option of taking over the Syndicate lock, stock and barrel, in war or in an emergency. This option will be referred to later when dealing with the Syndicate's functions in war.

So much for the organisation of the Syndicate. Its functions in peace are to ensure adequate supplies of good quality articles at the lowest possible price, and to maintain reserves sufficient to form the nucleus of the requirements of Base Canteen Depots in time of war.

At this point it is apposite to note some of the advantages that have accrued to troops and contractors from the formation of the Syndicate:

(*a*) The wholesale buying of commodities in bulk and for cash from all over the Empire has ensured the cheapest possible supplies.

(*b*) Careful management and an exact estimate of consumption has maintained constant supplies of freshly landed goods.

(*c*) The scrupulous examination of all goods at ports both on arrival and again before despatch to up-country stations ensures that only goods in perfect condition are forwarded. Very careful re-packing prevents damage *en route*.

(*d*) The small contractor operating, say, a British military hospital contract for twenty men, can buy at exactly the same price as the large contractor serving one or more British infantry battalions.

The Syndicate's buying system is to have regular monthly arrivals of all standard lines so as to ensure the freshness of stocks. Preference is always given to British Empire products. It is considerably more careful than the ordinary importer with regard to the acceptance of damaged goods.

The Deputy Assistant Director of Supplies and Transport, Sind Brigade Area, in the course of frontier campaigns over recent years, has frequently been called upon to take over from the Canteen Contractors' Syndicate, Ltd., and despatch up-country purchases made by the Director of Supplies and Transport. On such occasions as the actual duty of taking over has devolved upon the writer, he has been most impressed at the thoroughness with which such large despatches were inspected by the staff of the Canteen Contractors' Syndicate, Ltd., and the facilities granted to him to watch over the work. Cases were neatly laid out in rows on the godown floor, lids removed and then a 100 per cent. systematic examination of their contents carried out. No container about which there was a shadow of doubt as to its soundness was passed, though many so rejected were acceptable to ordinary canons. After this examination cases were carefully repacked and scientifically loaded into waiting railway wagons. All work was carried out systematically and expeditiously.

Nothing but perfect organisation could have enabled the Syndicate to play the great part it did in post-earthquake relief measures at Quetta in 1935. Within forty-eight hours of the call for help being received no less than seven railway wagon loads of goods were despatched as well as a trained staff to open up a relief canteen.

The storage and distribution of goods of so large a concern has, of course, been the subject of most careful consideration. Stocks are held at depots in Karachi, Bombay, Calcutta and Madras, and up-country stations are based upon whichever port can deliver at the cheapest price. There are also sub-depots at Rawalpindi and Delhi. The Rawalpindi sub-depot was opened about two-and-a-half years ago to function as a sort of forward depot for frontier operations as well as to cater for local units. It has been found that area sub-depots forward of ports are of great service to contractors since they are enabled thereby to get stocks quickly and so reduce their holdings. It is possible that these two sub-depots would be of use in connection with internal security measures.

The final function of the Canteen Contractors' Syndicate, Ltd., in peace is to hold sufficient reserves to enable the opening up of Base Canteen Depots in war as well as continuing services

to troops in peace areas. All the Syndicate's stocks are at the disposal of Government for canteen service in the event of war.

In so far as the Director of Supplies and Transport and the Director of Contracts are concerned, the position is that while the Canteen Contractors' Syndicate, Ltd., is under no obligation to supply them, it has always met their demands for stocks when it has been possible to do so without interfering with its normal commitments.

The rôle of the Syndicate in war has to be considered under two headings:

(*a*) Operations not involving mobilisation.

(*b*) Mobilisation.

In frontier operations the present system will continue, and contractors will accompany and continue to provide for their own units. The rate of rebate they will pay is subject to certain reductions as defined in the Canteen Manual (War) 1938. Base Canteen Depots for the supply of contractors will be opened by the Canteen Contractors' Syndicate, Ltd., in the area of operations as ordered by Army Headquarters, India.

Operations of this nature present no particular difficulty. From their experience of previous operations it is considered that the Syndicate's stocks will be ample to maintain for several months the troops engaged. The replenishment of these stocks is not likely to occasion any difficulty.

Full mobilisation, however, presents a very different picture.

In the first place, it must be assumed that full mobilisation will not be ordered unless there are serious disturbances in the country, or operations on the frontier, accompanied by war in Europe. Such a situation would immediately cause the mobilisation of all the resources of the Empire, the closing of normal trade routes and the general dislocation of all normal commerce through the commandeering of vessels and the restriction of exports. In such circumstances it is doubtful if the Syndicate could continue to function as a commercial concern. It seems probable that immediately upon full mobilisation, Government will exercise its option of taking over the stocks and the business of the Syndicate. On receipt of such a decision the Canteen Contractors' Syndicate, Ltd., will go into "hibernation" until the business is handed back, functioning only in order to fulfil the requirements of the Indian Companies Act. The business will

be carried on by the existing staff under the name of the Canteen Stores Department of the Government of India.

Units which have not been mobilised will continue to be catered for under the present Unit Contractor System. In the field the Field Canteen system will be introduced. Contractors of certain units will be appointed to run Field Canteens to cater approximately for 1,500 British other ranks, 3,500 Indian other ranks and twenty messes. These Field Canteens will be supplied from Base Canteen Depots opened by the Canteen Stores Department. All rebates will cease and contractors running Field Canteens will be supplied at the wholesale prices and will sell at the retail prices sanctioned by the Quartermaster-General in India. It is hoped that the wholesale prices sanctioned by the Quartermaster-General in India will enable the Canteen Stores Department to set aside a certain percentage of profit to be disbursed later to the units engaged, both British and Indian, in lieu of contractors' and banias' rebate.

The canteen staff employed by Field Contractors will not be enrolled but will be subject to military law under Section 2 of the Indian Army Act. They will remain the employees of the contractor though eligible for disability pensions. If they are killed, their heirs will be given pensions at such rates as the Government of India may decide. They will be entitled to draw rations and clothing on payment. Employees in Base Canteen Depots will be treated in the same way.

All persons engaged in canteen service will wear green armbands.

Field Canteen contractors will also be responsible for one or more light sections in the area allotted to them. Tentage, tables, benches, etc., will be provided on the scale laid down in the tables in the Appendix to the Canteen Manual (War), 1938, and free transport will be provided in the war area.

It is assumed that when the troops advance, established Field Canteens will remain in their original areas, and that advanced Field Canteens will be formed and operated by other selected contractors. In any case there will be no Unit Contractors in the war area and the special requirements of Indian troops will be catered for by banias engaged by the Field Contractors and attached to the Field Canteens.

That summarises the arrangements for canteens in forward areas.

We now turn to the Base Canteen Depots necessary for the supply of Field Canteens. On receipt of mobilisation orders the Canteen Contractors' Syndicate or the Canteen Stores Department will open the number of Base Canteen Depots ordered by Army Headquarters, India. Information regarding the number of Base Canteen Depots that may be required and full details of the strengths of the troops and the number of Field Canteens to be supplied by each Base Canteen Depot has been received. Indents have been prepared for the thirty days' supplies needed to open each Base Canteen Depot working on the strengths indicated. These indents will go to the warehouse immediately warning notice is issued and the requirements of Base Canteen Depots could be ready for despatch very soon after. The date upon which Base Canteen Depots will be ready to commence issues depends on the time taken in railway transit, supplies during the interim period being made from contractors' own holdings of stocks.

Sufficient stocks are held in Karachi to meet all demands likely to be made by Base Canteen Depots for the first thirty days, and it is hoped also for a further period of at least as long. The stocks in the depots at Bombay, Calcutta, Madras, Rawalpindi and Delhi, together with what is already in contractors' hands, will provide for the needs of the troops in back areas for several months, and some of these stocks will also be available to replenish Base Canteen Depots should Karachi stocks run out.

It has to be remembered in connection with stocks that the transition from ordinary peace scales to field service scales of rations will free considerable quantities of messing articles such as jam, cheese, etc., and these will be available either to augment the reserves held for troops in the back areas or for delivery to the Director of Contracts.

FROM INDIA TO THE IRRAWADDY ON FOOT AND BY CANOE

By Captain A. Simpson

Introduction

A month's holiday in India can be spent in several ways. For example, going to the hills and trekking, shooting, fishing or just staying in one place; or going on a sea cruise (which is bad for the brain and the liver); these are the ways in which the majority of people spend their spare time.

I had tried one or more of these ways but this time I wanted a new experience. As long as I had a complete mental and physical change I did not mind what I did. These two conditions I insisted on as they, in my mind, make a holiday really beneficial. So I thought of a canoe trip undertaken entirely by myself. The rivers in India are very long and for the most part flow through stretches of uninteresting, hot, dry plains. In Burma, on the other hand, the rivers flow north and south, *i.e.*, throughout the length of Burma, and in Upper Burma through dense forests and picturesque scenery.

The usual way to see Burma is to go by sea to Rangoon, thence by river steamer, train or car to Mandalay which is situated on the Irrawaddy River. From Mandalay one branches off north-west, north or east, according to what part of Upper Burma one wishes to visit.

The Chindwin river, the westernmost of Burma's main rivers, is nearest to India and flows through the Upper Chindwin and Lower Chindwin Districts eventually joining the Irrawaddy near Monywa about forty miles below Mandalay. The only way to visit these districts is by river steamer up the Chindwin river as there are no roads and the elephant is the only means of transport away from the river. Therefore if I wanted to paddle a canoe down the Chindwin river and to reach my starting point by the usual way, I should have to travel practically the whole length of Burma first and go up by steamer along the same route which I should eventually come down by canoe. This would take the gilt off the ginger bread; besides I might meet distractions (and there are many in Burma) on the way which would deter me from my purpose, or people would raise objections or put obstacles in my way. If on the other hand, I took the unusual way of entering Burma by walking across from India, all such difficulties would be solved. In addition I should get as much mental and physical

change as I needed because a one-man canoe on this route would entail going without any servant. Only those who have lived even a short time in India, where one is so dependent upon a host of menials, will appreciate what this means. I should have to cook, wash up, pack and unpack my canoe every day; and in fact do everything myself.

With the aid of a map I saw that a motor road ran from railhead, Manipur Road station, in North Assam for about one hundred and thirty miles to Imphal the capital of Manipur State. I wrote to the Political Agent of Manipur State asking if there was a road or track from Imphal to the Chindwin river in Burma. His reply was very reassuring and provided me with a lot of useful information. For my trip the most important information was that I should have to take all supplies with me from Imphal as none could be obtained on the way, that the journey would take six days to the river and that the coolies would not carry more than fifty pounds each. In other words I had to take a canoe which would suit a coolie's back and not necessarily one which would suit me best. This meant a canoe which could be carried in separate sections, each section weighing less than fifty pounds. My own kit and stores had to fit into the canoe when I reached the river. And the sections had to be made so that they could easily be fitted together.

The canoe was made of the thinnest tin in three sections of six feet each in length. The two end sections each contained an air-tight compartment which I could use for stowing stores. The centre section had a canvas covering which was clipped on along the top. This was meant to be used as a bed as I did not know the river at all and could not depend on finding villages at convenient intervals. Incidentally the Upper Chindwin District was regarded as a "backward state" until a few years ago, so I thought it would be safer to sleep in the canoe rather than on dry land.

I did not take any fire-arms since backward tribes, I reasoned, would be suspicious and even hostile if they saw me with a weapon, but would probably welcome me if they realised I had no ulterior motive behind my visit.

So I adopted Mr. Gandhi's ideal of non-violence and resorted to an umbrella.

I had bought the umbrella as a protection against the sun's rays during my walk across Assam into Burma and against the glare off the water while on the river. If there was one thing I could rely on, I considered it was fine weather. But it was actually as a protection against the rain that my umbrella came

in useful. For four continuous days and nights out of the six days of my trek it rained in torrents, and if it had not been for the umbrella I should probably have caught a chill.

A weapon would not have been of any use during that rain so I have a lot for which to thank Mr. Gandhi and his creed of non-violence.

Assam to Burma on Foot

After a long train journey, crossing the Brahmaputra river on a ferry steamer, I reached Manipur Road station in Assam and transferred my canoe to a bus in order to travel the one hundred and thirty odd miles to Imphal. The canoe rested on a number of tins of petrol in the bus, so on arrival at Imphal I was naturally anxious to find out whether it was still a canoe or merely a sieve. Once I left Imphal I could not rely on finding a helpful tin-smith conveniently sitting on the roadside who could repair the boat. I did not know at that time that I was going to have a leaking canoe on the Chindwin, nor that owing to the inherent hospitality and kindness of the villagers in Upper Burma I should have no trouble whatever in getting it repaired.

At any rate at Imphal the canoe was a canoe and had suffered no damage so far.

Imphal, the capital of Manipur State, is a delightful place and I stayed there several days as I knew I should not be returning the same way. The two most noticeable things about this place are, first the English type of architecture of the houses in which the Europeans live—black wooden beams and white plaster above a brick ground floor such as one sees in Staffordshire—and secondly, the bazaar which takes place every evening after dark and is run by women who come daily in hundreds to sell their goods.

The Political Agent was most helpful and, provided with five Naga coolies and a pass into Burma. I set off on the hundred-mile trek to the Chindwin.

At Imphal I bought stores to last me a week. Once I arrived at the Chindwin I could count on obtaining more supplies from the steamers which ply twice weekly up and down the river bringing food and merchandise to the villages. My food supply consisted of *dhall* (pulse) *atta* (coarse whole meal), coffee, powdered milk and sugar. I carried a kettle, but no spirit stove nor paraffin lamp as I could not take a supply of paraffin in the canoe and I should not be able to procure any on the way. I had to rely on firewood, so I carried a "kukri" or Gurkha knife.

The Naga coolies were "wild and woolly," whose ancestors were notorious for their head hunting expeditions. These expeditions are forbidden now, but they are almost impossible to suppress entirely on account of the difficult nature of the country.

I could not speak a word of their language, but the coolies had no difficulty in arranging the sections of the canoe to be carried in their own way. Their usual method of carrying a load is by means of a strap slung across the forehead which supports the load on the back and leaves the hands free for climbing up the precipitous hillsides. The centre section of the canoe was too unwieldy to carry like this and two coolies carried it on a long bamboo pole over their shoulders.

There was no difficulty in finding the way as the bridle path is broad and well defined and follows the telegraph line to Burma. The country is very hilly and covered with forest on the Indian side, while on the Burma side of the frontier it is undulating and covered with thick jungle. For this reason there is hardly any cultivation and I met very few natives. Even the villages were far apart and situated off my path.

The inhabitants are Kukis on the Indian side and Chins and Kachins in Burma. I could not tell the difference between my Naga coolies, Chins or Kachins as they all had Mongolian features and were short with thick legs and arms.

The only people I encountered throughout this walk were occasional parties of men carrying baskets of dried fish from Burma for sale in Imphal. The smell of this fish was so strong that I could detect the approach of any party long before I met it. Later on in Burma I was to eat this kind of fish as part of my daily diet.

The first two days of the trek were delightful and the scenery superb, range upon range of forest-clad hills on all sides; but on the third day the landscape was blotted out by the rain. It rained day and night until I reached the Chindwin. It was very depressing and I thought of turning back and throwing up the whole trip. But if I did turn back what should I do with the rest of my leave? Besides, I should be unable to face again the people who had made such discouraging remarks to me about my canoe trip. Furthermore pride and prestige in front of the Nagas, who were quite unconcerned about the rain, forbade my doing anything else except continuing the journey.

I slept in rough rest houses which were conveniently situated at stages along the way. Being built of mud and thatch they were not proof against the heavy rain, and consequently I was

not dry until I reached the Chindwin. I was provided with a "Lilo" mattress and a tin of Keating's. It did not matter whether I slept on the ground or on a hard bed; I rested on air.

I stored my food in the air-tight compartments of the canoe, and the rest of my kit with the coolies' belongings I put in the centre section covering it up with the canvas strip. In this way and with the help of the now priceless umbrella I managed to keep myself and my kit as free from damp as I could until I reached the Chindwin river at a small village called Sittaung.

Across the Frontier into Burma

The Burma frontier is passed halfway between Imphal and Sittaung where the path enters a small Burmese village called Tamu. At Tamu the police asked for my passport, but I had only the pass from the Political Agent of Manipur State. The names and nationalities of all foreigners entering Burma from India are telegraphed to the police headquarters of the Upper Chindwin district at Mawlaik. As I had to pass Mawlaik on my journey down river I wondered whether the police would find me, in my canoe.

At Tamu I could buy onions, potatoes and any amount of evil smelling dried fish. The natives all over Burma have a passion for this fish which is eaten, covered with salt and in a state of decomposition, every day with their rice. Hitherto I had cooked my own food which was very nutritious and sustaining, plain though it was. Little did I guess that before long I should be eating that highly salted dried fish myself nearly every day on the Chindwin river as a guest of a village headman. I knew no Burmese except the words for a village headman (the-gee) and rice and curry (thi-min-hin). I was assured that if ever I wanted anything to eat all I had to do was to stop my canoe at a village, say "the-gee" when the headman would be brought to me and if I then said "thi-min-hin" I would be given a large meal of curry and rice. No mention was made of any dried fish!

At Sittaung I had to part with my Naga coolies who, in spite of the incessant rain, had walked up and down hill with the agility of cats and had kept up with me throughout. I do not think they kept close to me for fear of wild animals in the jungle through which we passed, as they saw that my only defence was an umbrella. I was sorry when I had to part from them and did not envy them their journey back to Imphal through the forest and jungle.

The day I reached Sittaung a river steamer arrived carrying general merchandise, so I was able to replenish my larder. A young officer of the Burma Forest Department disembarked preparatory to making a five months' tour of the forests by elephant. It is from this part of Burma that a large quantity of teakwood is grown, cut down and floated down river to the saw mills in Rangoon where it is cut into various lengths and widths and exported all over the world. Teakwood and oil are Burma's most valuable exports. The Bombay Burma Company is the oldest company in Burma and handles most of the teak trade. This Company was trading in Upper Burma before the British had conquered it and had a trade agreement with King Thibaw in Mandalay. The Forest Department officers and the assistants of the Bombay Burma Company work together. The former decide which trees have a marketable value and the latter cut them down, mark them with their Company's mark and float them as rafts or as single logs to Rangoon.

It is very lonely working for months on end in the jungle and also unhealthy; but those men I met, Europeans and Burmese, who worked in this district were always cheerful and very hospitable to any stranger.

Down the Chindwin by Canoe

I put my canoe sections together for the first time since I started to the great interest of the Chins who had never seen a collapsible boat before, and tried the complete canoe out on the river.

This time there was a leak probably caused by the jolting on a coolie's back. The forest officer could speak Burmese so he called up the headman and asked him to mend the boat. Every villager on the river knows how to repair a boat, so in a very short time some dark brown resinous stuff was smeared over the leak on the outside of the canoe. When it dries this resinous stuff becomes very hard and is almost impossible to break off. So I was fortunate in being able at any rate to start in a water tight boat.

The captain of the steamer warned me to keep a look out for whirlpools. Of course I had never thought of any such dangers as I had never been alone on a river before. I was told that off each bend and headland I could expect a whirlpool, the strength depending on the strength of the current and the narrowness of the river at that particular point.

I must say that it was with no great confidence that I said farewell to the kind forest officer and launched out on the Chind win knowing only two words of the language. Thankful for the steamer captain's advice I kept clear of the main current for a while until my confidence increased.

After the heavy amount of rain the river had risen considerably and the current had grown stronger. I could see foam, looking like froth on the top of a glass of beer, floating down one side of the river. This scum indicated where the current was strongest. Mixed up with the scum were half submerged branches, refuse, and floating logs, all the result of the rise in level of the river. My canoe being very thin would not stand much damage so I had to be very careful of these floating objects. Naturally I wished to follow the current but when I came near a whirlpool I had to get out either in midstream or to the opposite bank and join the current further down.

I went very slowly and carefully and was able to appreciate the beauty of the scenery. On each side was a steep and narrow range of hills forming an escarpment, a noticeable feature of the Upper Chindwin. The hills were covered with forest which came down close to the water's edge and I noticed many beautiful kingfishers and other birds which took no notice of me as I paddled close to the bank. Occasionally a clearing in the jungle revealed a small village, each house being built above the level of the ground and supported on wooden piles. However small or poor the house, it was invariaby built on piles and this type is to be found all over Burma. In India to keep a house above flood level, the owner builds up the earthwork and puts his house on it. In Burma it is done in a different way; the water is allowed to flow under the house between the wooden piles.

On every river there is sure to be a "Lovers' Leap" and I passed the high cliff overhanging the river which was the local "Lovers' Leap."

The first day I travelled only twenty miles but when I grew accustomed to the current and not so afraid of whirlpools my average increased to between thirty and thirty-five miles a day. My starting time depended upon the mist which lasted from sunrise until seven or eight o'clock nearly every morning. Not knowing the river and being unable to see the landmarks which indicated the proximity of a whirlpool, I made quite sure of visibility before I started.

I was prepared to use my canoe as a bed as I had originally intended; but although my canoe was arranged to fit a mosquito

net I did not relish the idea as there was a very heavy dew at night and a thick mist in the early morning. However, not once did I have to sleep in the canoe because I was always provided with a room wherever I stopped. There are well built rest houses at intervals for the use of officials on tour and if I happened to stop at a village where one of these bungalows were situated, I slept there for the night cooking my own food. But the wonderful hospitality of the Chins, starting with the headman who was the first person I asked to see, saved me endless trouble. The magic word "the-gee" never failed to work and I seldom got as far as "thi-min-hin" since food, water and firewood were brought without question.

The headman followed by a score of women, either of his own family or a friend's used to carry my kit sufficient for the night to a rest house. It was always a woman who did the work. Then water and wood came along. I was not particular about where the water came from. I had neither filter nor alum but I used to boil the water and drink my coffee with great enjoyment. I did not give a thought to typhoid, dysentery or any other of the dreadful diseases about which my well meaning friends in India had warned me.

By the time I had finished my coffee the headman would march in ahead of one or more girls each bringing the local curry and rice. This was always cooked at the headman's house and was the same food which had been prepared for his evening meal. With the curry and rice was always the chief delicacy and pride of the headman—dried fish. To refuse this would be to cast a slur both on the food and the hospitality of my host, so I had to eat it. Eventually I grew accustomed to the taste but the saltiness never failed to bring on a violent thirst. The first time I ate it I had not reckoned on the after effects so I did not boil enough water to quench my thirst throughout the night. The fire had of course gone out and I did not dare to drink the water unboiled so I suffered agonies of thirst. After that lesson I knew better and always boiled a lot of water before the meal started.

I cannot speak too highly of the cheeriness and hospitality of these simple villagers. The language problem presented no difficulty to me as they had an uncanny way of foreseeing my wants and were always ready to laugh at anything I did.

I often left such stores and clothes as I did not need for the night in my unguarded canoe tied up to the river bank; but not a single thing was stolen.

Once I really was concerned. I had to walk about a quarter of a mile away from the place where I had left my canoe to reach the house which the headman indicated I could use. On returning the next morning after the mist had risen I was dumbfounded (literally too, because I could not speak the language) to find my canoe empty. Everything had disappeared, even the paddle. I had not long to wait, however, before the smiling headman appeared heading a procession of women carrying all my belongings.—The honest man had had everything taken out of my canoe for safety during the night and brought to his own house, and now he was returning it all to the canoe. Can hospitality do more? And this happened at a time when there were anti-Indian and anti-British riots all over Burma. I have often wondered whether these Chins would have shown me the same kindness and hospitality if I had taken a gun or a revolver with me.

I used to offer money every time but they used to burst out laughing and say something which, of course, I could not understand.

At another place I was presented with a large fisherman's hat, made of bamboo and plantain leaves. This hat is very light and of much more use than a sun helmet in protecting one's neck from the sun and one's eyes from the glare off the water.

It was not only this hospitality on the part of the Chins which made my journey so pleasant and easy, but also the hospitality and kindness, shown me by the officers of the Bombay Burma Company whenever I happened to come across their camps. It made me draw comparisons between India and Burma.

In a few days I reached Mawlaik where I was lucky enough to meet about a dozen Bombay-Burma assistants who were packing up ready to go on a long journey into the forests, each to his particular area. The District Forest Officer was preparing to do the same.

Mawlaik is situated high up on the river bank which is protected from erosion by a palisade of stones. The current flows strongly against this palisade and it is not at all easy to stop a frail canoe anywhere along this bank. I saw Mawlaik and the bungalows on the river bank long before I arrived, but I could not stop the canoe anywhere. I was swept past by the swift current until eventually I paddled into a small creek where the natives moored their boats.

Although they were all busy with preparations for their departure I was welcomed and entertained. The Forest Officer

put me up in his bungalow and made me stay much longer than I had intended and showed me the sights of Mawlaik.

It is only a few years ago that the Upper Chindwin District was a backward area inhabited by wild Chins and Kachins and there was no administrative station at Mawlaik. Now the District is ruled by a Deputy Commissioner from Mawlaik which is also the headquarters of two District Forest Officers, the Bombay-Burma Company's staff, Police and a battalion of the Burma Frontier Force. There is an English Church with a resident clergyman, a fine club overlooking the river and an eighteen-hole golf course. There is a small bazaar containing a few Chinese shops; but as Mawlaik is a new station no vegetables or fresh milk can be obtained. For from five to six months at a time Mawlaik is deserted. Officials and others go off into the forests; then a reunion takes place for a short period until the next exodus. I was fortunate to be there just before the exodus and shall always remember the happy time I spent there. If any of my friends in Mawlaik should happen to read this article let me take the opportunity again of thanking them for their hospitality. Whatever they thought of my wandering down their territory in a canoe they were kind enough not to say anything about it to me.

The delay in my departure from Mawlaik was fortunate for the police. I had forgotten since I crossed the frontier at Tamu that the police had sent information by wire to their headquarters at Mawlaik, but I was reminded about it the day before I left. This coincided with the arrival of the river steamer from Sittaung and the police naturally thought I was travelling by it. Hence an hour after the arrival of this steamer a harassed policeman came to the Forest Officer's bungalow and asked if Mr.—was staying there.

I suppose the police, having failed to find me on the steamer, had caught sight of an extraordinary looking canoe which no Burmese would ever be seen in, and had hunted for me in every bungalow. I could not produce a passport, nor even my pass into Burma because the police at Tamu had retained it. The police superintendent was out on tour so the sub-inspector wired down to the next police station on the river which was at Monywa, the headquarters of the Lower Chindwin District, telling them to look out for me. I had visions of this being done, all the way to Rangoon and wondered whether the police would ever find me either at Monywa or Rangoon.

Below Mawlaik the same beautiful scenery continued; an escarpment on either side covered with forest; a clearing here and

there where a village or rather a collection of wood and bamboo huts had driven the forest back, while on the river were natives in their one-piece dug out canoes who laughed and called out greetings when they saw me paddling down wearing one of their own large hats. Occasionally I passed a bamboo raft, sometimes one hundred and fifty feet long and about fifty feet wide, being slowly poled down stream. On these rafts were half a dozen thatch huts in which would live an official of the Forest Department or an overseer and staff besides the raftmen. The District Forest Officer at Mawlaik was very partial to this method of travel and would spend as long as a fortnight on a raft.

I found these rafts very convenient for stretching my legs as sitting for long periods at a time gave me cramp. I used to paddle up to a raft, tie the canoe alongside and walk about on the raft while all the time we were going down-stream. The raftmen were expert in steering their unwieldy craft clear of headlands and whirlpools.

A few days after leaving Mawlaik I crossed into the Lower Chindwin District and my canoe sprang a second leak. I had been paddling down for two or three hours one day when I noticed the water swishing to and fro between my legs and under the seat. The current at the time was swift and there were no villages or native canoes in sight. Just behind me a river steamer was bearing down and I had no time to cross over to the other side of the river. I could not hail the steamer as no one would understand what I was shouting out, and in any case I had to keep well clear of the wash of the paddles. These steamers are shallow draft "stern wheelers" propelled by a wooden paddle at the stern instead of a propeller. These paddles churn up the river and the effect is left long after the steamer has passed and is out of sight.

When I recovered from this seesaw motion I at once saw that the waves had considerably increased the flow of water in the canoe. Fortunately there was a large junk loading logs of wood moored against the bank further down. I stopped alongside the junk and pointed to the water in the canoe to one of the crew. Immediately several men knocked off work, beached my canoe, took all my belongings out, turned the canoe upside down and drained the water out of it. Then, some brown resinous stuff similar to that I had seen at Sittaung was brought from their junk, and in less than five minutes the leak was repaired.

All this happened without a word being exchanged between us. We could not understand each other's language; but they had no difficulty whatever in realising what I wanted done.

The canoe was then righted, my belongings carefully replaced and I was invited to continue my journey. Before doing so I offered them first money which they refused, then cigarettes which they also refused and to make sure I should not offer them anything else they pushed the canoe into the river and I was soon carried away from them by the current. This was another instance of the readiness to help a lone traveller which made my trip so enjoyable.

The scenery now began to change gradually. The range of hills, the escarpment of which I had found such a noticeable feature of the Upper Chindwin, disappeared and the forest became less dense. Villages were more frequent and I noticed patches of cultivation.

When I reached Monywa, the headquarters of the administration of the Lower Chindwin District I had entered the "dry zone." The forest had given place to dry open plains interspersed with a few small hills. The contrast was striking and reminded me at once of the plains of Central India except that Pagodas took the place of Temples and Mosques.

The climate at Monywa was hot and dry and I needed a mosquito net for the first time since I left Assam. The population consisted mostly of Burmese who are different from the Chins and Kachins of Upper Burma and there was a large Indian merchant community. There had already been trouble here between the Burmese and the Indians. More trouble was to come, and I was to come across it a few days later in Mandalay and Rangoon as well. In Monywa, as at Mawlaik, I was shown hospitality which made me stay longer than I had intended, and this, as before, enabled the police to trace me. As I was without pass or passport the sub-inspector said he would have to inform Rangoon. He evidently had a high opinion of the efficiency of the Rangoon police if he thought they could trace me there. I told him he was an optimist.

At Monywa the Chindwin forms a delta and joins the Irrawaddy by several channels. I had now spent three weeks of my month's holiday and had travelled nearly three hundred miles by canoe. I should not have the time to continue my journey further by river and in any case the dry zone which stretched from Monywa a considerable distance on each side of the

Irrawaddy would be too hot and uninteresting to make the journey pleasant. So I left the canoe, with its two scars showing where my friends the Chins had saved me from disaster, with my host of Monywa, and completed the rest of the journey by train to Mandalay and Rangoon. I had to discard my "fishing hat" but my canoeing kit caused some surprise in the Strand Hotel in Rangoon.

I left Rangoon by steamer and arrived in India exactly one month after I had started on my trip.

Looking back on my holiday now it seems like a story from "Alice in Wonderland" where everything turned out to be quite different from what I expected and yet with such happy results. It undoubtedly provided me with as complete a mental and physical change as I could have desired.

MISCELLANEOUS SERVICE NOTES

ARMY NOTES

Great Britain

The following changes in organisation were announced in the Secretary of State's speech introducing the army estimates:

Field Force

The strategic reserve at Home will comprise nineteen divisions available for foreign service as follows:

4 Regular infantry divisions;
9 Territorial Army infantry divisions;
3 Territorial Army motorised divisions;
2 Regular armoured divisions; and
1 Territorial Army armoured division.

(The Territorial Army Field Force formations, to which are added two cavalry brigades and a number of unbrigaded units are now to be duplicated.)

The second Regular armoured division is to be formed by the addition of one brigade to those now in existence and the reduction in the number of brigades in the division from three to two.

It is not at present contemplated that the whole of this force will be sent overseas simultaneously. It would be despatched in echelons as productive capacity to maintain it in the field develops. By the time the last echelon goes new forces will have been trained and equipped.

Middle East Reserve

The 7th and 8th Divisions in Palestine which are organised in two brigades each of four battalions with a reduced complement of supporting arms are to constitute a Middle East Reserve as a separate force.

Coast and Anti-Aircraft Defence

Two anti-aircraft divisions are to be added to the present corps bringing the total up to seven. These seven divisions will form a Command. The Deputy Chief of the Imperial General Staff at the War Office will become the Director-General of Anti-Aircraft and Coast Defence.

All existing medium and heavy batteries and searchlight companies will be equipped this year. A quantity of light anti-aircraft guns have been purchased abroad and deliveries from Home factories will begin in the autumn.

At overseas ports, establishments of local forces are to be raised. The Royal Malta Artillery is to be increased by over one thousand gunners and enlistment in the Royal Army Ordnance Corps opened to Maltese. In Singapore and Hong-Kong, local and Indian personnel are to be added to existing establishments. Singalese soldiers are to be raised as regulars for the first time. The prospects of raising units in Cyprus are under investigation.

The Military Cadet Colleges

The Royal Military Academy is to be moved to Sandhurst. The combined establishment will be known as the Royal Military Academy, Sandhurst, and will consist of a "Woolwich" group, an armoured group and the infantry group.

Mobilisation

Regular recruiting offices will close down on mobilisation. Thereafter all recruits will be enlisted into the Territorial Army, recruiting being carried out for the first three days at drill halls and after that at two hundred centres supplying training units for all arms.

* * * *

Compulsory Military Training

On the 26th May the Royal assent was given to the Military Training Bill which was announced by the Prime Minister in the House of Commons on the 26th April. The Bill gives power to call up for six months' training all men between the ages of twenty and twenty-one. Provision is made for the exemption of conscientious objectors who undertake work of national importance, for the postponement of training for those at universities, and to safeguard employment. Its currency is three years.

Compulsory military service will enable the air defence of Great Britain to be always partially manned. It will also provide reserves for the Regular and Territorial armies, both to complete Regular units to war establishments on mobilisation and to meet wastage.

To assist in the provision of instructors, arrangements have been made for the re-enlistment of pensioners of all ranks and of suitable personnel of the Territorial Army for periods of three years. Reservists are invited to rejoin the colours.

The 1939 class consists of about 300,000 men of whom about 210,000 are expected to be suitable for military service. About 40,000 of these are already serving. Of the 170,000 left for the Militia some will go to the field force and the remainder to the air defence of Great Britain. Registration has begun. The men will be called up through Ministry of Labour offices, interviewed by a military officer, and posted as far as possible in accordance with inclination and aptitude. Most of them will go in the first place to depots or training centres for about two months after which those qualified will go to leaders' schools or train as specialists. The remainder will go to Regular units. Frequent tests will allow of the grading of squads in accordance with aptitude.

Training for the infantry of the line will be carried out for two months in Militia Recruit Companies at Regimental Depots; for two months in a Militia Training Company attached to home service battalions; and for two months in the home service battalions themselves. For regiments with both battalions overseas, Militia Training Groups will be formed. Regular recruits will be trained in Regular Recruit Training Companies which will move from the depots to Home service battalions or elsewhere in the United Kingdom until extra accommodation at depots has been provided.

Mobilisation

The introduction of the Reserve Forces and Auxiliary Forces Bill which has since become law was announced by Mr. Chamberlain on the same day as the Military Training Bill. It authorises the service departments to call up reserves and embody the Auxiliary forces by order in council instead of only after the more public and lengthy procedure of Royal Proclamation. The process of mobilisation is thus simplified and released to a certain extent from its political repercussions. Similar powers are enjoyed by every other country in Europe—and by India.

Reservists will be required to help train the Militia and to ensure that the Regular army after finding instructors for the Militia and the enlarged Territorial Army is up to strength in trained men. A large proportion of the Regular reserves are accordingly to be called up this year for periods not exceeding three months. Territorial Army anti-aircraft units are to be embodied this summer to serve at their war stations for not longer than one month.

As in the Military Training Bill, provision is made for the reinstatement of employees who are called up.

The Royal Armoured Corps

With effect from the 11th April, the eighteen regiments of the cavalry of the line which are mechanised or about to be mechanised and the Regular and Territorial units of the Royal Tank Corps were incorporated in the Royal Armoured Corps with a record and pay office at Canterbury and depots at Bovington and Catterick. Officers will remain for the present on the separate regimental lists of their previous corps though majors will be eligible for selection to command any unit of the Royal Armoured Corps. Other ranks will not be liable to serve outside their previous corps in peace during their current engagements with the colours. Thereafter they will be required to serve in any unit of the Royal Armoured Corps; and so will recruits now enlisted. The units forming the new corps retain their present titles, badges, battle honours and distinctions, and the position of Colonels-in-Chief, Colonels Commandant and Colonels are unaffected except that the Royal Tank Corps has become the Royal Tank Regiment, of which His Majesty has been graciously pleased to become Colonel-in-Chief. The Royal Armoured Corps takes precedence in the army immediately before the Royal Artillery.

The remaining regiments of the cavalry of the line not incorporated in the new corps are the 1st Royal Dragoons and the Royal Scots Greys (2nd Dragoons).

Training

Army manœuvres are to be held in Yorkshire between the 15th and 23rd September. From the 10th to the 15th, the 1st Corps will assemble in the Aldershot area and will be made up to approximately war strength by drafts from the 3rd and 4th Divisions. It will then consist of the 1st and 2nd Divisions; various units of G.H.Q. and corps troops, Supplementary Reserve units; and the 70th and 74th Field Regiments, and the 51st and 52nd Light Anti-Aircraft Regiments of the Territorial Army with their signal sections. The Corps will move the two hundred odd miles to Yorkshire by road and by special troop train, providing opportunities to test the organisation of such a move including the control of the very large number of vehicles. The supply arrangements will not be neutral, and will, with the co-operation of the railways, be organised as in war. The long period provided—previous army manœuvres in 1925 and 1935 lasted a few days only—will enable a proper test to be made of the functioning of the supply services and will also provide realism in the working of staff offices, and in the demands made on the troops.

Allied and enemy forces will be represented. The object of the manœuvres is to practise the functioning of a modern army corps on a large scale and not to test commanders against each other. The operations of the allied and enemy forces will therefore be subject to control.

* * * *

Prior to Army Manœuvres, the 1st and 2nd Divisions will train in the Aldershot area; the 4th Division will undertake brigade training and a combined operation in East Kent; the 5th Division will train in Yorkshire; and the Armoured and 3rd Divisions in the neighbourhood of their peace stations.

Courses for Officers

Courses for commissioned officers are to follow a natural sequence throughout their service. Every subaltern will take a course in the weapons in which his branch of the service is armed. In the technical arms, these courses will be of longer duration (for example, that for the Royal Engineers will include two years at Cambridge University) and will provide for advanced instruction in technical subjects. In all cases, the object is to fit officers to command a sub-unit in peace and war. All combatant officers with not less than twelve years' commissioned service will then attend either the junior wing of the Staff College or a ten weeks' course at the Tactical School. At this school, as already announced in these columns, fitness for promotion will be judged; and officers will be trained for command and to teach others. Finally selected officers of the Regular and Territorial Armies of the rank of lieutenant-colonel and upwards will attend a Higher Commander's Course in the latest organisation, tactical handling of the latest equipment and strategical doctrine. Naval and Royal Air Force officers will attend the first part of the course, which will be held at Aldershot. The second part of the course will be at Old Sarum, in close touch with the Royal Air Force.

New Battalions

His Majesty the King has been pleased to approve the reformation of the 2nd Battalion the Irish Guards and the creation of a 2nd Battalion the Welsh Guards.

Recruitment of Anglo-Indians

The War Office has decided to recruit Anglo-Indian fitters into the Royal Army Ordnance Corps for service in Egypt and Palestine and with British units in India.

Tour of Foreign Service

The tour of foreign service for warrant officers, non-commissioned officers and men has been reduced to four years, except for short tour, emergency or temporary duty. This rule is expected to be fully operative by 1942-43: in the meantime, soldiers who cannot be relieved owing to drafting difficulties will be given the option of completing five years' overseas service or of taking six months' furlough with free passages for themselves and their families and then beginning a further four-year tour.

The foreign tours for officers remain as before for the present.

Inspectors-General

The post of Inspector-General of the Forces has been recreated. The duties of the Inspector-General of Overseas Forces include responsibility for arrangements for the reception of the field force should it be sent overseas. The Inspector-General of Home Forces has duties in connection with air raid precautions.

The Territorial Army

On the 29th March the Prime Minister announced that the field force portion of the Territorial Army, many units of which had been turning away recruits, would be brought up to war establishment and then doubled. The immediate response has shown that there should be no great difficulty in providing the 210,000 extra men required. The chief difficulty will naturally lie in the provision of equipment and accommodation. For the present new units are for the most part using the equipment and drill halls of their parent units.

The total establishment of the Territorial Army was doubled within six weeks, and in a number of counties all units are complete in personnel.

Ministry of Supply

Legislation has been introduced to set up a Ministry of Supply and the new Minister has begun the task of forming his department. The scope of the Ministry is at present confined to:

(*i*) Problems of army supply.

(*ii*) The supply of stores such as certain naval guns, ammunition and civil defence stores which have hitherto been supplied to other government departments under arrangement made by the War Office.

(*iii*) The acquisition of reserves of raw materials in connection with the defence programme.

(*iv*) Securing priority for government orders.

This is expected to entail the transfer of the whole of the existing supply organisation at the War Office together with responsibility for the Royal Ordnance Factories. Arrangements for supply for the Admiralty and Air Ministry are to remain as at present: they are working well and are not required to expand to the same degree as those for the War Office which have to compete with the equipping of the doubled Territorial Army, the air defence of Great Britain, the Regular Army at Home and abroad, the defended ports and the Militia. Provision to secure priority for government orders is of the greatest value. The powers given will probably be effective enough if kept in the background; but it is considered that much can be done to speed up deliveries for the defence services without interfering with manufacture for export. Questions of priority as between the services will be settled by a Ministerial Committee.

India

Reduction of British Troops in India

The following British units left India without replacement during May and early June:

17th/21st Lancers;
"C," "F," and "G" Batteries, Royal Horse Artillery.
7th Medium Regiment, Royal Artillery.
1st Battalion the Dorsetshire Regiment.
2nd Battalion the Rifle Brigade.

There are now no regular Royal Horse Artillery units left in India, medium artillery regiments are reduced to one and British cavalry regiments to three.

The Sandhurst (Indianisation) Committee

This committee, which was originally intended to meet last January, assembled in Simla on the 29th May and is likely to continue sitting until August. The terms of reference are:

> "To examine the progress of Indianisation of the officer ranks of the Indian Army with a view to determining whether the results achieved justify acceleration, and if it appears from this examination that they do not, to consider such alteration in the system of recruitment to the Indian Military Academy as may be expected to lead to an improvement in the number of suitable candidates and to make recommendations."

Lieutenant-General Sir Roger Wilson is chairman of the Committee. The Defence Secretary and two British officers are members; all the other members are Indian gentlemen.

The terms of reference have since been extended to include the Indian Air Force and the Royal Indian Navy.

Cavalry Mechanisation

The 13th Lancers and the Scinde Horse, which began mechanisation as armoured car regiments last year, are to have a mixed organisation with two squadrons of armoured cars and one of light tanks. Their description has been changed to Indian Armoured Regiment.

Three more regiments, Skinner's Horse, the P.A.V.O. Cavalry and the Central India Horse are to mechanise shortly.

Spit and Polish

It has now been decided that all equipment, including leather-work, which is liable to be used on active service shall be left dull and unpolished in peace, including ceremonial parades.

Mechanical Repair Organisation

With effect from the 1st April, the responsibility for the repair organisation for mechanical transport in India was transferred from the Quartermaster-General in India to the Master-General of the Ordnance in India. The Headquarters Maintenance Group, Chaklala, was abolished on the same date and its functions transferred to the Master-General of the Ordnance at Army Headquarters.

SCHOOLS

The Tactical School for Officers

The provisional date for the opening of this school is now the 1st August 1940. In 1941 and subsequent years, there will be three courses annually, each with about nineteen vacancies, for Indian Army officers.

Officers whose service for promotion counts from before the 1st January 1925, will be required to pass promotion examinations. Officers whose service counts from after that date will attend the school unless otherwise qualified for promotion.

Equitation School

The Equitation School at Saugor has begun to close down.

The Schools of Weapon Training and Mechanisation

These schools were formed last year from the Small Arms School, Pachmarhi, the Machine Gun School, Ahmednagar, and the Royal Tank Corps School, Ahmednagar. They are now to form a Small Arms School (with a Company Weapons Wing at Pachmarhi, whence it will eventually move to join the Support Weapons Wing which will be formed at Saugor) and a Fighting Vehicles School which will remain at Ahmednagar.

The Indian Army Ordnance Corps School

This School and the Indian Army Ordnance Corps Depot have moved to Jubbulpore where a new Indian Army Ordnance Corps Artificers' School has been formed to train men who have already gained some mechanical knowledge in civil life. These artificers are required in conncetion with the new mechanical repair organisation and to meet demands for skilled tradesmen which are expected to increase as mechanisation is extended.

AIR FORCE NOTES

Operations

In addition to the normal duties of watch and ward on the frontier, the Air Forces in India have, during the period under review, taken their usual part in maintaining order in Waziristan. Operating both by day and night, units on the frontier have provided sorties in support of columns in the Khaisora and Shaktu valleys and in the vicinity of Spinwam and the Ahmedzai Salient. Blockade measures in conjunction with ground forces have been taken in certain areas and co-operation has been provided with the Tochi and South Waziristan Scouts and on a few occasions with the Frontier Constabulary.

By June operational commitments had been very considerably reduced and units are at present engaged on normal training.

General Interest

On the 18th March at the Delhi Civil Airport His Excellency the Viceroy inspected the present and new replacement types of aircraft in service with squadrons in India. The inspection was followed by a demonstration of the performance of the several types. His Excellency the Commander-in-Chief, civil and military officers of the Goverment of India and Members of the Council of State and Legislative Assembly also witnessed the display.

No. 31 Squadron participated in the Northern Flying Club "At Home" held at Lahore on the 8th April and gave demonstrations of message picking up and formation flying.

The annual flight to Gilgit took place on the 6th April.

LETTER TO THE EDITOR

SIR,

May I invite your attention to an inaccuracy made by "D. F. W. W." in his review of the History of the 1st Battalion, 6th Rajputana Rifles (Wellesley's) in the April issue of the Journal.

In referring to the complete change of class composition in the battalion between the years 1892—1895 as a result of the reorganisation of recruitment, "D. F. W. W." states "The changes almost coincided with the selection of the unit in conversion into a rifle regiment." This statement is incorrect as the battalion was made a rifle regiment in 1841 (page 90 of History refers), being the first battalion in the Indian Army to be selected for this distinction. The changes, therefore, took place over forty years before the changes in class composition occurred.

Yours, etc.,

A. G. BUTLER, MAJOR,

1/6th Rajputana Rifles (Wellesley's).

REVIEWS

"THE WAR BEHIND THE WAR"

By F. P. Chambers

(*Messrs. Faber and Faber, Limited, London*: 16*s*.)

After weeks of study of some major operation between 1914 and 1918 in Palestine or Mesopotamia, or after reading some of the 2,768 pages of the "World Crisis," one has often wondered what sort of terrifying volume would confront the school-boy of the future in his historical study of that jumbled period of four years. But as the Great War recedes into the past, so does it become yearly easier to view it as a whole and in its true perspective.

This book is the result of a most successful attempt to clear this perspective by reaching past the military events, and by viewing the successive stages in the struggle in their moral and economic aspect and their effect on political and social developments among the civil populations of the warring nations. The author has in fact attempted, as he says in his preface, to "fill the gap left by that too common kind of political history of modern times, which seem always to end where the War began or to begin where the War ended, as if in the intervening years the political life of the nations had stood still."

Part I of the book starts with the outbreak of war, and gives just sufficient outline of military events on which to hang the author's main theme. He is pleasantly impartial as between Statesmen and Soldiers, and his military outlines are eminently sane and unbiased.

He then gives a chapter to each of the main fighting countries and the United States to explain the political effects upon them of the opening war years, and to show in many of them the degree and effect of the gradual encroachment of military authority in the civil sphere. The chapters on Russia and the U. S. A. are of special interest, particularly the account in the latter of the gradual changes in the American mentality and attitude to the war and towards Germany.

This first Part covers generally the first third of the war and shows how the nations adjusted themselves in some degree to the new and extraordinary conditions confronting them, and contains much which has not been previously included in a single volume.

Part II covers the middle period of the war, from the end of 1915 to the end of 1917. The political results of increasing war-weariness and effectiveness of blockade in the respective countries are tackled in a most readable way, a separate chapter being devoted to each country concerned. Here perhaps the passages of greatest interest are those which deal with the Balkans, internal affairs in Germany, and the gradual hardening of opinion in America.

Part III contains but a single chapter labelled "1918," and one might imagine that the author, grown weary of his subject, had decided to dismiss the final phases in the briefest space compatible with decency. It is, however, an excellent conclusion to an excellent book. While of necessity containing much that has appeared in other books, this final chapter consists of an absorbingly interesting and connected narrative of the major events leading to the overthrow of the Central Powers. The value and the shortcomings of our propaganda are duly stressed, and it is instructive to read of the intention to form an Inter-Allied Propaganda Committee which was interrupted by the armistice.

Perhaps the most interesting passages trace the interplay of political personalities in Germany when her home front was in process of breaking and the Kaiser was gradually becoming "de trop."

The book fittingly ends with the armistice. Then follow eighty pages of very carefully compiled Notes, Bibliography, Appendices and Indices.

So many books have appeared which deal with the Great War that one is increasingly reluctant to take up another. But this work does certainly appear to make a new and original approach, and reminds one of problems which are of ever-growing importance as the successful conduct of war comes to depend more and more completely on the security of the home front.

E. H. W. C.

ROYAL INSTITUTE OF INTERNATIONAL AFFAIRS: INFORMATION DEPARTMENT PAPERS

No. 21: China and Japan

(Second Edition: 2*s.* 6*d.*)

This book provides an excellent background for a study of current affairs in the Far East. It does not go into any great detail, just sufficient to give one a clear picture without too much heavy reading; and—an essential in any book on Sino-Japanese affairs—the chain of events is easy to follow. The book starts with a concise exposition of the views taken by the Chinese and Japanese Governments on the object of the present operations. It follows on with a description of the political factors in China and Japan. In order properly to comprehend the Japanese point of view and also their occasional peculiar and high-handed dealings with foreign powers, it is necessary to understand their history and religion. Their religion enters very largely into politics and this is clearly explained in Part I of the book.

Part II traces the main events in Far Eastern history from 1860 to 1931. Thereafter there is an interesting account of the acquisition by Japan of Manchukuo and its present administration.

Sino-Japanese and Russo-Japanese relations from 1933 to the present time are dealt with in separate chapters. A chapter is devoted to developments since the outbreak of the present hostilities and gives one an excellent idea of the situation, not only as it affects China and Japan but also interested foreign Powers.

Part III is devoted to economic factors in China, Japan and Manchukuo. This makes interesting reading and the figures given are set out in such a manner that they are easy for the ordinary person to follow.

J. N. C.

No. 23: Germany's Claim to Colonies

(Second Edition. 1*s.*)

This pamphlet sets out in a fair and straightforward manner the many aspects of Germany's claim for the return of her former colonies. The authors do not attempt to suggest a method

whereby the problem might be solved, but confine themselves to explaining, in meticulous detail, the many practical difficulties which attend every aspect of the problem and every argument and suggestion that has been made for the return of colonies to Germany. The pamphlet is well worth reading and should go a long way to dispel loose thinking and generalisation on a very complex subject.

The impression one gets from the publication is that most of the Powers concerned realise that the placing of Germany's former colonies under a mandate was a mistake. The chance of restoring these colonies to Germany either in their original status, or by a transfer of mandatory powers subject to Germany re-entering the League of Nations has, however, gone, even if such were ever practical propositions.

The rise to power of the Nazi party, and the repeated manifestation of their belief in force, has made it abundantly clear that, having regard to their geographical position, the return of colonies to Germany now could result only in increasing the menace of the Axis powers. The conclusion is that the democracies have no alternative, should the question be raised officially by Germany, but to intimate that while they do not regard the question to be closed, they are not prepared to discuss it until such time as the Axis powers give practical proof of their renouncement of war as an instrument of policy. Such may be a pious hope, and for as long as it remains so, so must the present position remain unaltered. As a further act of appeasement, or to gain "peace at any price," the return of Germany's colonies to-day would be useless, and possibly fatal to the British Empire.

H. W. D.

INFANTRY IN BATTLE

(THE INFANTRY JOURNAL, INC., WASHINGTON, D.C.)

(Second Edition)

This is an extensively revised and rewritten second edition of a book prepared by the Military History and Publications Section of the Infantry School of the American Army and first published in 1934.

The work has many points of novelty and interest to one familiar only with British military writings. For one thing, nothing quite in this style ever emanates from our official sources. We have our text-books and our manuals which lay down doctrine and general principles, guides for every situation, wherein a justification for or against every conceivable course of action can usually be found; but, from their very nature, our text-books are impersonal and abstract to the last degree, devoid of concrete instance, example or illustration, and lacking all the interest afforded by human experience. At the other extreme are the official histories, careful and studious accounts of events, which avoid like poison or the plague anything savouring of criticism or of instruction in how to do better next time. The book under review is an interesting mixture of both text-book and history. Although presumably an official American manual, it is written in free and conversational style, well got up and printed and easy to read. It gives a large number of historical examples taken mainly but not entirely from American experience in the Great War to illustrate the application of important maxims selected from the regulations. The majority of the examples are taken from the "Personal Experience Monographs" of regimental officers of the American Army; they are excellently illustrated with clear and well produced sketches and they give a vivid picture of the conditions of war. And this last is the object of the book. The editor, in his introduction, states a fact of such universal application that it deserves to be quoted:

> "Officers . . . find themselves surprised and confused by the difference between conditions as pictured in map problems and those they encounter in campaign. This is largely because our peace time training in tactics tends to become increasingly theoretical. In our schools we generally assume that organisations are well trained and at full strength, that subordinates are competent, that supply arrangements function, that communications work, that orders are carried out. In war many or all of these conditions are absent."

And he goes on to mention "the extremely difficult and highly disconcerting conditions under which tactical problems must be solved in the face of an enemy."

In his opening chapter, which is on the subject of "Rules," the writer gives so good a summary of the art of command that it also may be quoted:

> " . . . the leader . . . must first close his mind to alluring formulæ . . . he must learn to cut to the heart of a situation, recognise its decisive elements and base his course of action on these. The ability to do this is . . . a process of years. He must realise that training in solving problems of all types, long practice in making clear, unequivocal decisions, the habit of concentrating on the question at hand, and an elasticity of mind are indispensable requisites for the successful practice of the art of war. The leader who frantically strives to remember what someone else did in some slightly similar situation has already set his feet on a well-travelled road to ruin."

Of its nature, "Infantry in Battle" is a book to be dipped into and consulted rather than to be taken in large doses, but it certainly fills a gap between the narrative of history and the precepts of the text-book; a want which in England is catered for almost solely by the crammer writing with one eye on the promotion and staff college examinations. It seems a sad lack that nothing of the sort has been produced for the British Army, and that we have none of the "Personal Experience Monographs" maintained by the American Infantry School. Our battle experience is immeasurably greater than that of the Americans and covers almost every country and condition on the face of the globe. As used by the Americans, such battle experience would breathe life into the dead and dry bones of "Field Service Regulations."

F. E. C. H.

HALDANE 1915—1928

The Life of Viscount Haldane of Cloan

By Major-General Sir Frederick Maurice.

(*Faber and Faber*: 18*s*.)

The keynote of this great man's life was Education. It mattered not in what position he found himself; those over whom he had control must be educated. Thus when he was at

the War Office he strove to educate the Army to be fit to meet a great Continental War.

The salient fact that strikes a reader of this biography is that here was a man who could think clearly on any subject under the sun. Once in possession of the facts, he could be relied upon to give an opinion logically sound and utterly unbiased by class prejudice, political leanings, religion, or any other extraneous factors. This must have been recognised by all who came in contact with him and yet on the outbreak of the Great War, he was flung out of office as a result of political vindictiveness. Vindictiveness that was entirely unjustified and which followed him even into the realms of Musical Comedy.

And so throughout the war he was never really allowed to pull his weight.

Nowadays everyone admits that his was a master mind, that he was a very great War Secretary and that he was nearly always right. But then, during the Crisis, he was deliberately cast aside.

It is rather a black mark against our political system—indeed against democracy in general. It seems incredible that so great a man should be busy with the reorganisation of a provincial university, when his opinions would have been invaluable to the War Cabinet.

After the War, however, when Haig had hailed him as "the greatest Secretary of State for War England has ever had," and when the publication of relevant documents had utterly cleared his name, he again became a great national asset. In an advisory capacity, which was his real rôle—for he was an indifferent politician—he did much for the Defence Services and in particular the Committee of Imperial Defence. Chapter IV—"The Higher Direction of War" is of great interest to Service readers in showing how clearly and far-sightedly this man could think.

Later he drifted into politics again, into which he should never have returned, because his was a mind that should have been used by the nation irrespective of the party in power. His reasons for joining the Labour party are curious in the light of to-day. He conceived that they alone were interested in education, which was his creed. Perhaps he was too great a man to realise that education of the masses—with the necessary political

twist—is usually the aim of any new political party. Had he lived, I think, Nazidom would have enlightened him.

Nothing describes the man better than the inscription on his tomb:

"A GREAT SERVANT OF THE
STATE
WHO DEVOTED HIS LIFE
TO THE ADVANCEMENT AND
APPLICATION OF KNOWLEDGE.
THROUGH HIS WORK IN
FASHIONING HER ARMY
HE RENDERED INVALUABLE
AID TO HIS COUNTRY IN
HER TIME OF DIREST NEED."

As regards the book itself; the last chapter, a careful analysis of the great man's services, is of particular interest. Perhaps the biographer claims a little too much, but nevertheless the arguments advanced carry conviction. To Service readers, too, the letter written by Lord Rawlinson and reproduced on page 177 is of interest in view of present policy. That letter was written in 1924!

As a whole, the book is of great interest, certain chapters of absorbing interest; but it is a pity that the author in his anxiety to do Lord Haldane justice should have quoted *verbatim* at such length from his speeches. Rhetoric is apt to be tedious reading.

H. V. S. M.

"ENGLISH CAPTAIN"

By Captain Tom Wintringham

(*Faber and Faber, Ltd.*: 12*s.* 6*d.*)

The Civil War in Spain has produced its fair share of literature but there is a particular interest in "English Captain" since it deals with the International Brigade on the Government side in general, and the British Battalion in particular.

The story begins in September 1936 with a visit to the German Thaelmann Grupo and at once shows up the difficulty of organising and training an army of civilians of diverse nationalities, arms, and political theories. Both here and later

the author compares with shrewd judgment and humour the characteristics of the various races encountered in the ranks of the government forces. The Spaniards with their foolhardy bravado, their dislike of digging in, and their cruelty, typifying the decay of Spain as a military nation and the mentality that has produced the national sport of bull fighting. Next the Germans; stolid, methodical and tidy in their fighting, their political belief, and their trenches and shelters. They alone of the foreign contingents took the trouble to learn Spanish to any extent. As to the English, the Battalion presents a cross-section of the nation, ranging through university graduates, *ex* officers and men of the regular army, to cockneys and Jews from the East end. The last members of the Brigade to be described are the Americans of the Lincoln and Abraham Battalions. True to form, they entered the campaign at a later date than the other nationalities, and, as in 1917-18, their almost complete lack of war experience was balanced by their adaptability and gift of being able to think for themselves in action.

The author next learns the mechanism of various machine-guns and imparts his knowledge to the elements of several machine-gun companies in the Brigade. The speed with which these weapons are mastered in spite of the almost complete lack of such essentials as lubricating oil, practice ammunition and belt filling tools is phenomenal.

The recital of the duties of a Political Commissar is absorbingly interesting. Though the authorities may have visualised political propaganda as his main work, in fact his rôle was a mixture of those borne by chaplains, quartermasters and medical officers in our service, and the value of a live wire in this appointment to an overworked commanding officer must have been immense.

The author commanded the British Battalion in its first action in February 1937 when General Franco, having failed to capture Madrid, made an anti-clock-wise drive to the south of the city in an endeavour to cut the road to Valencia. The description of the Battle of the Jarama and the doings of the English gives several lessons in minor tactics. Above all, it proves conclusively the necessity for leadership and tactical knowledge on the part of officers.

After being twice wounded, the author became an instructor at an officers' school and gives samples of the lectures he delivered at this establishment. Some of the theories, which he apparently learnt in Spain for the first time although three years in France in the Great War, are elementary and below the standard of the rest of the book, though probably of interest to the lay reader. General Franco's tanks and aircraft do not appear to have been altogether successful against experienced troops, and it is obvious that their tactical handling was not of a high order. The superiority of the militia-men in street fighting is well brought out, and can be summed up as due to the lack of trained leaders required for more open warfare combined with the individualism and bravery of the amateur fighting for his principles.

The book is well illustrated with sketches and photographs, and, though the reader may oppose the politics of the author and those whose doings are described, only the most bigoted will fail to have his admiration aroused.

W. D. A. L.

ADMINISTRATIVE ASPECT OF OPERATIONS, STAFF DUTIES AND TRAINING

By Lieut.-Colonel J. G. Elliott

(*Sifton Praed & Co., Ltd.*: 4 *shillings.*)

This moderately priced work gives a vivid picture of the relations between a commander and his staff and between the staff and the services. It is written in a simple and attractive style and is not burdened with technical detail. It is thus essentially a counterpart of the manuals, dealing with the practical efforts required to implement their principles. The effect of the human factor on administrative problems is treated with a balanced outlook which provides a basis for constructive progress. Suggestions are given for future development and reorganisation which are based on solid foundations and which are particularly worthy of consideration by all those concerned in solving these problems.

The book should be of particular use to both staff college graduates and candidates; and by leading to a mutual appreciation of their respective tasks it should serve as a contribution to better co-operation between the various branches of the staff, the services and those they serve.

L. A. L.

BEHIND THE LINES

By Colonel W. N. Nicholson, C.M.G., D.S.O.

(*Jonathan Cape.* 10*s.* 6*d.*)

This book deals with military administration during the Great War and is written in the form of personal reminiscences. It should be read by every staff officer.

The author served on the administrative staff throughout the war: first with the 51st (Highland) Division of the Territorial Force when that formation was billetted in Bedford where there was much muddle, neglect of administration and indiscipline about which he is refreshingly frank. Later Colonel Nicholson joined the headquarters of the New Army 17th Division in France whence he went to Corps Headquarters and thence to General Headquarters which he found 'not really human.'

The two main lessons of the book are: first that administrative staff work in war cannot be learnt from the routine of service on the staff in peace, and secondly (that hardy platitude) that co-operation between the general and administrative staffs is essential. Some of the practical lessons which the administrative staff had to learn after the outbreak of war may appear elementary to-day. But we should not be complacent: in the next war the problems will be different, and only study and thought can remedy the lack of practical experience obtainable in peace. The book is full of examples from which the author can extract the moral that the work of the general staff must depend on that of the administrative staff, in particular that of "Q." One wonders once again at Lord Esher's division of the staff into two separate branches, one freed from all considerations outside those of leading and training troops and one doomed to spend the greater part of its peace time activities on details quite unconnected with war. This book will perhaps draw attention to another much-needed army reform.

It is not to be imagined that because of its numerous lessons the book is in any way pedantic or dull. It is written in a somewhat breezy style, full of anecdotes and of the human factor which the author found lacking at General Headquarters. For that reason it should appeal to a wider public than those to whom it is recommended for instruction.

J. S. H.

BOOKS RECEIVED.	*AUTHOR.*
Survey of India General Report, 1938 ...	Brigadier C. D. Lewis.
Behind the Lines ...	Colonel W. N. Nicholson.
Adm. Aspect of Operations, Staff Duties and Trg. ...	Lieut.-Colonel J. G. Elliott.
Haldane, 1915—1928 ...	Sir F. Maurice.
India in 1934-35 ...	Official.
600 Questions and Answers on Air Forces Law ..	Sqn.-Leader H. M. Shurlock.
Customs of the Service ...	A. H. S.

PRESIDENT'S REPORT FOR THE YEAR 1938

1. *FINANCE*

The Auditor's report is satisfactory. It draws attention to the increase of expenditure under the headings of "Lectures" and "Essay Prize and Medals" which is in accordance with the policy laid down by the Executive Committee, and to a decrease in income under the head "Members and Subscriptions" which is probably largely a result of the present unsettled conditions. The accounts show a satisfactory year's working, the excess of income over expenditure being Rs. 5,278-6-7 which compares with Rs. 6,324-13-1 in 1937. The financial position of the Institution is sound. The balance on capital account now stands at Rs. 1,17,812-0-0. During the year investments to the value of Rs. 1,700-0-0 matured and Rs. 5,574-6-0 was invested in $3\frac{1}{2}$ per cent. Loan 1947-50 (Rs. 4,252-8-0) and Post Office Cash Certificates (Rs. 1,321-14-0) bringing the total investments at cost (or accrued value in the case of Post Office Cash Certificates) to Rs. 74,526-0-0. Cash and other balances amount to Rs. 5,630-0-0.

2. *MEMBERSHIP*

During the year 2 Life, and 86 Ordinary Members were enrolled. Against this 127 Ordinary Members died or resigned and 25 Members were struck off for non-payment of subscription leaving a net reduction of 64. Under the new rules a further 37 have been struck off this year and it is possible that other members may similarly have to be struck off. There is an unfortunate tendency for officers to cancel their banker's orders or leave the country and cease paying subscriptions without formally resigning.

On 31st December 1938 membership was:

Life Members	...	390
Honorary Member	...	1
Ordinary Members	...	1,465
Total	...	1,856

The number of regimental messes, clubs, libraries, etc., subscribing to the Journal was 194—an increase of 10 during the year.

It may interest members that in 1925, when the total membership was 1,510 and the number of subscribers to the Journal 134, the President regarded it as doubtful whether a further increase in membership could be expected. Efforts to increase membership are being continued.

3. *LIBRARY*

The library continues to be well kept up. A total of Rs. 974 was spent on books. Including presentations, 149 volumes were

added to the library during the year. Approximately 780 volumes were borrowed.

4. *JOURNAL*

The increased rates of premia payable continued to attract a good quality of articles and the standard of the Journal was maintained. More contributions on naval, military and air force matters of up-to-date interest are, however, required.

5. *LECTURES*

During the year the following lectures were delivered at Simla and were well attended. His Excellency the Viceroy honoured the Institution with his presence at the lecture on "The Sino-Japanese Struggle":—

1. "Experiences in Shanghai in 1937" by Major H. McL. Morrison, M.C.
2. "The Italo-Abyssinian Campaign, 1935-36," by Lt.-Col. A. C. Arnold, C.B.E., M.C.
3. "The Sino-Japanese Struggle," by Major J. E. H. Nicolls, M.C.



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EDITORIAL

It might have been appropriate to begin these notes with a quotation from the editorial of October 1914; but that issue of the journal opened with a brief diary of events, an example which it is too early to follow at the time of writing. Here, instead, are some words written by George Borrow some eighty-five years ago which were copied out by the sender in August 1914 and are as apposite now as then:

"O England! long, long may it be ere the sun of thy glory sink beneath the wave of darkness! Though gloom and portentous clouds are now gathering rapidly around thee, still, still may it please the Almighty to disperse them, and to grant thee a futurity longer in duration and still brighter in renown than thy past! Or, if thy doom be at hand, may that doom be a noble one, and worthy of her who has been styled the Old Queen of the waters! May thou sink, if thou dost sink, amidst blood and flame, with a mighty noise, causing more than one nation to participate in thy downfall! Of all fates, may it please the Lord to preserve thee from a disgraceful and a slow decay; becoming, ere extinct, a scorn and a mockery for those self-same foes who now, though they envy and abhor thee, still fear thee, nay even against their will, honour and respect thee. Remove from thee the false prophets, who have seen vanity and divined

> lies; who have daubed thy wall with untempered mortar, that it may fall; who see visions of peace where there is no peace; who have strengthened the hands of the wicked, and made the heart of the righteous sad. Oh, do this, and fear not the result, for either shall thy end be a majestic and an enviable one; or God shall perpetuate thy reign upon the waters, thou Old Queen!"

Thoughts such as these must have been in the minds of most of us, though expressed in tones both less exalted and less gloomy. Members of the "services" are no more inclined than any others to welcome war; but the relaxation of suspense, and the feeling that war is less intolerable than peace under the only conditions on which we could temporarily have enjoyed it, have brought a certain relief. Whatever reverses and disappointments we may suffer—and it would be absurd not to expect both—there can be no doubt about the final outcome. The staying power and material resources of France and of the British Empire are immeasurably greater than those of Germany. They are far more developed and are likely to be more scientifically applied from the outset than was the case in the last war; but as in the last war, their effect will prove increasing and cumulative.

The Germans, on the other hand, have been existing under conditions approximating to those of war for some two years. They begin the struggle with a fully developed machinery which they clearly intend to use completely ruthlessly. Conquests may temporarily add to their resources, but otherwise their reserves must run down and their means of replenishment be restricted. It seems amazing that rulers such as Hitler who have given evidence of a certain hard, ruthless sense should believe that the democracies can be overwhelmed in a lightning war. One is driven to suspect that their actions are those of despairing and desperate men.

* * * *

Propaganda

More will be known, perhaps, by the time these lines appear in print of the effect of the propaganda leaflets which have been dropped on Germany. In the last war our propaganda service developed slowly and only showed its full effect towards the end. Then, as now, it was based on truth. The method followed two main phases: first, by providing the enemy with true and easily verified facts, a favourable

basis was laid for the acceptance of the second phase when the extent to which the common people had been betrayed and deceived by their rulers was made plain. At the outbreak of the last war, in Germany as in other countries, internal differences were forgotten, the oppositions voted war credits and nations became united. Propaganda made slow headway at first, and only truthful propaganda could prevail. Perhaps as a result of these experiences, there has been a tendency while discussing the setting up of the nucleus of the present Ministry of Information to lay undue stress on the necessity for propaganda to be truthful. When originally coined, the word described the proselytising activities of the Jesuits. In the period following the last war it began to acquire a faintly sinister implication. Now once more it is assumed that propaganda must necessarily be truthful. This is far from the case. A perusal of both the advertisement and news columns of the average daily paper affords ample evidence of the power of a propaganda which is based on what is not strictly truthful or what is in many cases deliberate falsehood.

In no country is the power of lying propaganda more evident than in Germany. There it has been amply proved that by shutting out the truth from the greater majority that majority can be made to believe one fantastic brand of nonsense one month and quite a different brand the next. The German State has for some time been cemented by lies. As the truth breaks through the reaction will be all the greater. But it will not break through easily or find ready ears. So we are wise to begin to put truth before the German people early. Our quarrel is not with them so much as with their rulers. With utterly faithless and utterly unscrupulous persons such as Hitler and his companions, there can be no peace.

* * * *

India

In our last issue it was suggested that India's share in bearing the burden of Imperial Defence could not be measured by the lack of any spectacular rise in her defence budget. Proof of the justice of this was soon given when early in August reinforcements from India arrived in Egypt and Singapore. Admittedly, as His Excellency the Commander-in-Chief pointed out in his broadcast speech on the Chatfield Report, the security of these gateways to the Indian Ocean is vital to India herself; but they are at least equally vital

to the Empire as a whole, and the promptness and smoothness with which these precautionary moves were carried out gave an instance of India's preparedness.

The possibilities for India at the present moment are considerable. No one in the British Empire could fail to be deeply touched by the spontaneous offers of service which have come from the humblest communities as well as from rulers and princes. These will not be forgotten. In the meantime leaders of nationalist opinion in Congress and in the Muslim League are faced with a difficult but momentous decision. They have proclaimed hostility to the British rule, yet by persisting in this hostility at the present time they will render direct assistance to aggression, imperialism and fascism which they have equally condemned, and they will also be acting in opposition to what has been clearly expressed as the wish of very large sections of public opinion. At the moment the Provincial Governments appear fully prepared to co-operate and to fulfil their functions. The manifesto issued at Wardha on September 14th after the lengthy meeting of the Congress Working Committee postpones a decision. It seems certain that if Congress decided to oppose the conduct of the war, it would risk loss of influence and stand to gain little; but if it decided to suspend opposition for the time being, advantage would not be taken of its forbearance; and if co-operation were decided upon, the British Government would be unlikely to remain unresponsive. A lead is called for. The Viceroy's address to the joint session of the legislature in Simla created a favourable situation. The suspension of federation, though only a suspension, was welcomed in almost all quarters. It is to be hoped that those responsible for India's political future will rise to the occasion.

The readiness with which rulers and communities have offered their services leaves no doubt that India has at her command ample resources of the finest man-power. The problems of finding commanders and equipment have to be overcome. India's industry is already able to meet many of the needs of the fighting forces and is on the verge of large-scale development. The expansion necessary to provide for defence and to meet the demands of the Empire and its allies round the Indian Ocean may well have to be very considerable. This stimulus may turn India into an industrial as well as an agricultural nation and have a profound effect upon her prosperity.

The Indianisation Committee

As regards officers, the material is undoubtedly available. The registration of European British subjects will help to discover it, and so should the efforts of the committee on the Indianisation of the officer ranks of the Indian Army whose terms of reference include ". . . to recommend such alteration in the system of recruitment to the Indian Military Academy as may be expected to lead to an improvement in the number of suitable candidates."

The committee concluded its second session in July after hearing a great deal of evidence, and on the 22nd left on a tour which included Karachi, Bombay, Poona, Bangalore, Mysore, Secunderabad, Hyderabad, and Nowgong during which educational establishments and Indianising units were visited. The committee reassembled in Simla on the 14th of August, but the pressure of business on its official members led to the adjournment of the session. It is hoped, however, that the committee will be able to complete its important work during the autumn.

* * * *

The Chatfield Committee

His Majesty's Government have now announced their acceptance of the main recommendations of the Chatfield Committee. The importance of this decision has naturally been overshadowed by the outbreak of war and it was unfortunate, though unavoidable, that pressure of business prevented the announcement at an earlier date of the extremely generous treatment of this country by the Imperial government.

It seems only logical that India should be at least jointly responsible for that part of her defence which must be conducted from outside her coasts. In the past her resources have only permitted her to cater for her immediate local defence relying on reinforcement by Imperial troops and on the protection afforded by the Navy and by the garrisons of the entrances to the Indian Ocean. Conditions on the frontiers of India have changed and potential threats to her coast increased. India can now distribute her resources differently and has already done so. This is not really so startlingly new as it might appear. We still rely on the British navy, on overseas garrisons of the British Army, and on the might of the British Empire in the background.

The gift of money and the generous terms of the loan which completes the sums needed to modernise the Army in India are therefore in no way one side of a business deal. Whether India

received assistance or not we should obviously have to dispose our available forces to the best advantage. There is now a prospect of increasing their efficiency by giving our man-power the weapons and equipment which it deserves. This has been becoming increasingly essential and it is hard to see how a country which is not rich could have continued to maintain forces of any value or avoided being almost completely dependent on outside help without this timely and generous assistance.

* * * *

The Gold Medal Essay

A total of four essays were received for the Gold Medal to be presented by the Institution this year. The judges have decided that none of them is deserving of the medal though monetary awards have been made. The subject-matter unfortunately makes it inadvisable to publish any of them. The number of essays submitted is not, we must hope, an indication of the degree of interest taken by members of the Institution and the defence forces in India generally in questions of the day concerning defence matters. If it were so, the outlook would be poor; but in fact, contributions on other subjects prove that this is not the case. The subject set for next year's essay is one on which it is hoped that people will have opinions to which they will be prepared to give expression.

Apart from the Gold Medal Essay, the pages of the journal offer to readers an opportunity of expressing their views on other questions. The paper is in no sense an official one, but it is believed that some members are chary of expressing opinions which they feel may not be acceptable to those in authority. It is true that under the regulations articles by serving officers have in some cases to be submitted for official approval to publication. This approval is rarely withheld though it may sometimes be necessary to make slight alterations to avoid making certain matters public or to protect tender susceptibilities. If an author is apprehensive that a lively article may incur the wrath of the authorities and secure him a black mark for life, he can test the reactions of the powers by asking us to submit his work under a nom de plume. We will undertake to keep his real name as secret as he wishes. Finally, while on the subject: there has been an absence for a long time of articles from our Indian members.

* * * *

The Frontier

The situation indicated above can be pleaded as an excuse for making this something of a "Waziristan Number" in publishing two articles on frontier policy. One presents the problem and its development, the other offers some immediate suggestions with which not all readers will agree. The only final solution of the problem is clearly disarmament, pacification, and improvement of the economic situation of the tribes. Unfortunately disarmament is not practicable in existing circumstances. For disarmament we must have pacification and for pacification it seems we must have disarmament. To spend money in endeavouring to improve the conditions of those who make the biggest nuisance of themselves seems hardly fair; and the example of the world as a whole has not been such as to lead the tribesmen to abandon the practice of investing their available resources in armaments.

It is probable that a final solution of this problem has now been still further postponed. One thing which can be resolved is to avoid wasting opportunities as we have done in the past.

* * * *

As for the immediate situation: there is a deterioration to be recorded. Early in July Ipi moved to Kharre within the Durand line and summoned his principal supporters. He was also visited by sympathisers bringing money and supplies, many from the Bannu district. He is reported to have ordered increased guerilla activity on the road between Bannu and Razmak: if so, his orders have been obeyed. During July and August the activities of hostile gangs have continued both in North and South Waziristan and the usual bomb planting and cutting of telegraph wires has been indulged in. A number of successful actions against these gangs have taken place and Ipi's efforts to rouse the tribes as a whole have met with no success so far. During August, air proscription drove him into Afghanistan whence he has since returned with the intention of opening hostilities on a large scale.

Conditions in the Bannu district appeared to improve slightly at the beginning of July. But that this was merely due to the absence of the leading bad characters on visits to Ipi, was proved by the marked deterioration which set in in August. Early in the month one Musk-i-Alam, a notorious outlaw, was shot during a raid on a village. Brutal reprisals followed and a number of incidents showed that the sympathy of many of the inhabitants of the

district are with the raiders from outside. Fear of such reprisals is enough to prevent any co-operation with the government from those who might prefer to be loyal. Subsequently a British officer was murdered while motoring from Dera Ismail Khan to Bannu and the prospects of bringing the criminals to justice seem slight. Measures to restore the situation are now being taken, but in the circumstances it may be some time before authority can be fully respected, confidence restored, and a return to normal conditions brought about.

* * * *

The Health of the Army in India

Volume II of the Annual Report of the Public Health Commissioner for 1937 shows a considerable reduction in hospital admissions both of British and Indian troops compared with the previous year. The figures of admissions have been dropping steadily; but they are still about double those in the United Kingdom. This is due partly to climatic conditions and partly to the more primitive methods of conservancy and sanitation generally which prevail in this country and which only time, money and education can improve, particularly in cantonments near densely populated areas outside military control. Untiring anti-malarial work and new methods of treatment have reduced malaria incidence to 44.5 per 1,000, the lowest yet recorded. This was in spite of the Waziristan Operations which were carried out in the hot weather and in areas notorious for malarial endemicity. These operations were the first on the frontier in which casualties were evacuated by air; eight British officers, 29 British other ranks and 64 Indian other ranks were evacuated by this means to Rawalpindi.

Some 25,500 recruits were examined: 35.73 per cent. were rejected. The commonest cause of rejection was trachoma. It is not known how the examination of recruits in India compares with that of the Militia in Great Britain, about which there has been so much argument by those interested in condemning or extolling the social system; but it is believed to be stricter. It compares satisfactorily with past figures for the British Regular Army.

A very good sign for the future is the increase in the numbers and popularity of child welfare centres. Money is provided by grants from funds under the control of Army Headquarters, by

the Red Cross and by the subscriptions of all ranks of units. Medical personnel give their time free. That the general health of the next generation will be improved is certain; equally important are the immediate effect of the welfare centres on the general conditions in cantonments and lines and their educative effect in inculcating knowledge and dispelling prejudice. Arrangements are being made to collect further information about the work of these centres which should increase the value to be obtained from them in future years.

The medical service may well be proud of their achievements in improving the general health of the army. India as a whole owes them a debt.

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The United States

It appears at the time of going to press that the United States of America intends to ignore the difficulties attendant on revision of her neutrality laws after the outbreak of war. The controversies over the Neutrality Act which preceded the war were unfortunately influenced to a certain extent by internal politics. In Congress, both the Republican and the Conservative elements in the Democratic party were anxious to weaken Mr. Roosevelt's position in view of the presidential election which is now approaching; and in the Senate, the vote in the foreign relations committee which declared postponement of consideration of the bill until January was swayed by two Senators against whom the President has displayed hostility. This does not alter the fact that Americans are determined to keep out of the war if they can, though some of them may have suspected at the time that domestic affairs were preventing them from choosing the best way. Ever since the present law was passed as a temporary measure in 1936 doubts as to its soundness have been expressed. It imposes an embargo on the sale to belligerents of arms, munitions, and implements of war. Such sales have always been recognised by international law as moral and as compatible with neutrality. Their embargo, as has already been proved in the case of Abyssinia and Spain, directly favours the aggressor who attacks a weaker nation. An embargo of this sort is also illogical, since it does not prohibit the supply of other materials essential for the prosecution of a war. Further, the

legitimate supply of arms is less likely to involve America in war than the entry of American ships into war areas which the law does not forbid.

These aspects of the case were pointed out by Mr. Cordell Hull when urging revision of the law so as to remove the embargo on the sale of munitions and to substitute provisions to restrict the movement of American citizens and ships, and to ensure that goods of any sort destined for belligerents should change ownership before leaving the country. The Congress, however, defeated the administration and rejected its proposals. Instead, it carried by a very narrow majority an amendment lifting the embargo from the sale of "implements of war," a term which has been held to include aeroplanes and their components but to exclude motor transport and medical supplies. It was this amendment which the Senate decided not to consider until next January. The original Neutrality Act thus remains in force and Mr. Roosevelt proclaimed its application.

He himself made it plain that he considered the amendment of the Act might conceivably have deterred the aggressor and prevented war. A large section of public opinion in the United States agreed with him and the *New York Times* criticised the Senate's action as an "invitation to war." This is almost certainly an exaggeration. Hitler was evidently convinced that any bluff would succeed, and it is doubtful if an amendment to the Act would have deterred him at all.

It now seems likely that the Senate will agree to revision of the Act on the lines recommended by the President. These alterations will tend to favour the democracies by giving them access to America's industry and thus adding considerably to our war potential. Our Navy can be relied upon to deny that access to enemy vessels. What is, in the long run, of even greater value to the democracies is the moral support of the greater part of the American Continent. No law can dictate to the American people which way their sympathies shall lie. We can count on the majority of these sympathies being with us, and this is as much as we have any right to hope for.

THE ECONOMIC AND FINANCIAL ASPECTS OF DEFENCE AND REARMAMENT

A Lecture delivered to the members of the Institution on the 20th July 1939.

By Dr. T. E. Gregory, D.Sc.

Lieutenant-General Sir Bertrand Moberley, K.C.I.E., C.B., D.S.O., *introduced the lecturer.*

Ladies and gentlemen,—I am going to divide up my subject into three distinct parts simply for the purposes of convenience. I am not one of those people who believe that it is possible to say of any subject that it is true in theory and wrong in practice. But I do think that there is very considerable advantage in distinguishing the bare bones of the subject from the very difficult detail with which it is clothed at any particular moment of time. And, therefore, I am going to begin by asking what are the theoretical issues involved in a policy of rearmament of the magnitude that we are witnessing at the present time.

And, first of all, let me deal with the economic aspects and pass on from them to the financial aspects. I am going to be quite general in my remarks to begin with and then I am going to deal with the grave situation which presents itself to the United Kingdom and to other countries in this particular year of grace. What from the economic point of view does rearmament involve? It involves the application of such resources as the country possesses in a certain direction. That is to say, it involves sucking into the military machine directly or indirectly a great mass of raw material and plant and machinery and at the same time a great mass of man-power. That sounds exceedingly simple. The point is—to use technical language—that rearmament must inevitably for the greater part rely upon *current* resources and *current* man-power. In other words, it assumes behind the military machine an economy in order to turn out from time to time the raw material and the plant and the equipment that the military machine desires. I emphasise this point because it has from the financial point of view extremely important consequences. But it also has from the economic point of view extremely important consequences. Rearmament involves dipping a huge bucket into a stream of things and the first and fundamental question, which economists ask themselves is as to whether this withdrawal of raw materials and plant and human labour leaves

the situation as it was before or whether it does not. In any community and in any country in which at the moment at which rearmament begins the entire stock of productive plant, the entire body of efficient workmen are already being employed, rearmament involves, and must necessarily involve, a diminution of what is available for other consumption unless—and this is an important point—unless you can increase the total depth of the stream. In other words, rearmament has a different effect upon the standard of life of the population according as to whether or not at the moment that rearmament is intensified there is available a margin of unemployed resources, and it makes also a great deal of difference to the standard of life whether or not when rearmament begins the size of the national productive machine can be increased. That is the theoretical issue. If, when rearmament begins, there are no stocks or raw materials left unused, if there is no plant or machinery left unemployed, if there are no reserves of human skill and human energy available, then the more intensive the rearmament campaign becomes the greater is the drain on the potential resources of the community and the lower therefore the standard of life must fall, given a certain volume of rearmament. Well, with the possible exception of Germany, at the present time there is probably no community which does not start the intensified rearmament of 1939-40 without a certain margin of unemployed reserves, and, I shall presently show that from the practical point of view, it is the extent of this margin which is the crux of the whole problem from the standpoint of public opinion. But even if the whole available reserve were already being employed, it is still possible from the economic point of view to pursue a policy of rearmament and yet leave the standard of life what it was before rearmament began, given certain assumptions. And I want to explain how this can happen. It can happen through the possibility of increasing the stream of productive resources, at any rate for the moment. And how can that be done? In the first place, it is possible to utilise existing machinery—and under machinery I include skilled labour and unskilled labour as well as physical plant—more efficiently than it was previously employed, and in this particular connection I want to emphasise how enormously important the element of human psychology is. The studies of the Welfare Department of the Home Office during the last war showed perfectly conclusively that output varied not only with the technical condition of each plant, but also with the state of health (including mental health) of the workers. And this kind of

psychological response to a situation, which is greatest in war time, may exercise a very considerable influence even in the shadow war period in which we are living at the present time. All sorts of vexatious little restrictions and practices which may interfere with output on the part of human beings are for the time being tacitly dropped. All sorts of trade union practices which are designedly introduced in order to restrict output may be removed by tacit or explicit consent. In other words, that much-used phrase "producing up to capacity" is one of those statistical figments of which the press is very fond, which in practice means that nobody can really know how much you can get out of the existing economic machine until you try; and the psychological response may mean that you can get a great deal more than is thought at first sight.

In the second place, it is possible to increase the current output of munitions of war by reducing the extent to which humanity makes provision for the more remote future. A large part of the resources of any population consist of things which do not wear out immediately but the uses of which are spread out over a very considerable period of time—if I may use a technical phrase, what economists call "durable consumers' goods." They include anything from a gramophone to a motor car, from an overcoat to a house. Now, it is possible to increase the immediate output of munitions by using part of the labour which would have been used in peace time for the production of durable consumers' goods for the production of munitions. Instead of the building trade building houses they can build munition plants, and instead of skilled engineers building motor cars they can build aeroplanes. In that sense, part, but only part, of the cost of rearmament is thrown on to the future. Because if you have a motor car, and if the life of a motor car is three years, you can only consume 1/36th part of the motor car in the next month and consequently by reducing the production of consumers' durable goods now and increasing the production of munitions you are in fact, if you like, drawing a cheque on the future. By making less provision for the future and more for the present you can in fact increase the aggregate output of munitions without necessarily reducing the standard of life at *this* particular moment of time.

A third way in which you can increase the margin of resources available for the production of munitions of war—and please understand that by munitions of war I do not merely mean rifles and shells but everything that the military force requires—is by deteriorating the inheritance of the past. Each generation enters

into a heritage bequeathed to it by the efforts of its ancestors and most people are unaware of how enormously important this heritage of the past is. The well-tilled countryside, the roads and railways and houses, the whole of what we call the physical apparatus of civilisation, is very largely an inheritance from the past. If you want to increase the supply of munitions, you can in fact partly do so by simply allowing this physical heritage to deteriorate in quality. And during every war, the physical heritage does deteriorate on a most colossal scale not only because of positive destruction but also because there is not the man-power available or the woman-power available to look after it. You can, if you like, not make repairs to a house. You can, if you like, not look after the drainage system of the agricultural world, and things of that kind. You can divert that particular fraction of the national population whose efforts are devoted normally to keeping this physical heritage in good order from looking after it into doing something else, and, of course, from the practical engineering and statistical point of view, the important question is, how much of the labour devoted to maintaining the physical heritage can you divert? The answer to that cannot be given in general terms, for the very simple reason that it depends on how urgent the necessity is to prepare for war and how little therefore in consequence the cost of the transfer is going to be regarded.

There is a fourth and final way in which we can increase the resources which can be devoted immediately to the preparations of munitions of war. We can, if we like, extend the deterioration of the physical apparatus to the human apparatus by war preparation. We can, if we like, deteriorate the physical quality of the population in the long run, provided that we think that it is worthwhile to do that if only we can get munitions in the present. Now, it is one of the extraordinary episodes connected with rearmament in Europe at the present time that this fourth method of increasing the amount of equipment available for rearmament is increasing by leaps and bounds. If you read the last report of the Director of the International Labour office, you will find that he faces an extremely important question, namely this: Ever since the war there has been a general consensus of opinion that a reduction in the length of the working day is desirable, not only from the narrow sided considerations of profit and loss to the individual employer, but also from the standpoint of the increase of human welfare. In other words, that an increase in leisure by and large is a real advance in civilisation. And he asks the question how

is it that everywhere in Europe instead of the length of the working day being reduced the length of the working day is being substantially increased? And the answer is that the only general reason for this change is the pressure of the Ministries of War. We are, in fact. in addition to all the other methods of adding a cubit to our stature, beginning to draw, before the war has even broken out, upon the health and strength of the population.

Well, those are the methods by which an economy can expand the physical apparatus necessary for the production of munitions of war. But these things do not and cannot arrange themselves. Quite apart from the ways in which the thing can be done, there is the enormous question facing civilisation, namely, how it is going to be done, and from the economic point of view, therefore, there is a third general question, that is, the question of the kind of organisation which is necessary in order that the production of munitons of war can be increased. And here one comes up against one of the critical points of the whole movement. Broadly speaking, there are two possible solutions to the question of organisation. Let me explain what the problem of organisation is. It is the question of supplying the right things at the right time in the right place and to the right people. Considering the immense volume of requirements at the present time, this problem of organisation is obviously a very acute one. How can it be solved? Well, broadly speaking, there are two solutions and I shall not indicate at this stage which of the two solutions I prefer. The first solution is the classical liberal solution of leaving it to the price mechanism. If Government wants Rolls Royce engines for aeroplanes, then raise the price of Rolls Royce engines to a point at which it becomes impossible even for the richest millionaire to buy more than one a year. If it is a question of accumulating a stock of tinned food, then raise the price of tinned salmon to such a point that the ordinary man can no longer afford to buy. The higher price will increase the supply of tinned salmon on the one hand, and will reduce the consumption on the other. And, therefore, there has always been among liberal economists of a certain school the view that the problem of organisation has been enormously overdone. All you have got to do is to let prices go up and up and then people can whistle for their Rolls Royce cars and for their tinned salmon. They won't get them because the Government having always more money than the capitalists and customers can always outbid them. Well, I have not the time fully to explain what the psychological repercussion on modern

democracies of that kind of policy is. It leads, *inter alia,* to an enormous amount of recrimination and it takes the form of perfectly unjustifiable attacks on the manufacturers of various things for selling their things at the highest possible prices, and their being denounced as profiteers.

There is, therefore, a second and what I might call totalitarian solution of these difficulties. It is not to allow the use of particular streams of production to be decided by the question who can pay most for them, but to decide the question by the introduction of a system of controls. And that is why in Great Britain as elsewhere so much attention is rightly devoted to the question of ministries or ministers of supply. It is the duty of such an agency to determine, firstly, what shall be produced, and, secondly, to determine the order in which such things shall be produced; and, instead of leaving it all to the price system to determine, the Ministry of Supply attempts, successfully or unsuccessfully as the case may be, to decide these matters by reference to governmental *fiat.* We are, all of us, in other words, placing implicit faith in the policy of a parliamentary minister responsible to a not very coherent body of public opinion, assisted or not as the case may be by his colleagues and his subordinates, to settle by *fiat* what is the appropriate order in which the economic resources of 47,000,000 people shall be used. Now, of course, from the economic point of view, that is a frightfully fascinating thing to watch and I shall watch the new Ministry of Supply with the greatest interest, and it is going to be an exceedingly interesting thing to see whether or not a democracy such as ours can solve the problem of priority more or less successfully than the autocracies of Germany, Italy or Russia.

Side by side with an economic problem, rearmament involves a financial problem. And let me try and explain why it involves a financial problem. Even in Russia, even in Italy and in Germany, which in some respects are slave states because you have universal conscription of labour and no appeal whatever against the authoritarian decree as to where people shall work, even in those countries, but still more in the democracies, people have to be paid a price, even if it is only a low one, for the services which they render and for the goods which they produce. And the problem of finance is nothing more than the problem of trying to raise the necessary sums in order to reward these efforts. Now, from the financial point of view, just as from the economic point of view, there is no escape from one fundamental principle. The greater part of the real efforts, the sweat and blood

which is involved in producing munitions, has to be rendered now because it cannot be rendered at any other time. So from the financial point of view, it is utterly impossible by any known device to throw the financial cost of rearmament upon any generation excepting the generation which rearms. An enormous amount of confusion has been created by the popular delusion that you can throw the cost of rearmament, or throw the cost of a war, on to a future generation by some means of financial sleight of hand. Now, I say, speaking with such authority as an economist can command—which is not very much—that this is an absolute delusion. It is absolutely impossible to throw the cost of rearmament or of a war on to any other generation except the generation that undergoes the experience. It is quite true that, if war were to break out next week and London were bombed to pieces, the future of our children would be very different from what it would have been if London had not been bombed. Notwithstanding, it is people now living who would experience the full impact of the bombing of London and not the children who are going to be born in twenty or thirty years' time. Similarly, from the financial point of view, you do not throw the cost of rearmament on the future generation merely by borrowing the money instead of taxing the present generation. Let me make it quite clear that by no known method can you really throw on to a future generation the real cost of rearmament. Why? Because rearmament has to take place *now* and because the people who are turning out the armaments have to be paid *now* and consequently the real cost of all these things is what we sacrifice, in other words, what we would have got in return for spending money if we had not had to rearm, and that is a cost which can only be borne by the generation which is actually turning the munitions out. If there is any sceptic among my hearers I hope to pursue this subject with him later on. It is quite true, let me repeat, that in consequence of rearmament the position of our children and our children's children will be different from what it would have been if we had not rearmed, but that is quite a different thing from saying that the real cost of rearmament, whether you are thinking of it in human sweat and blood or in terms of financial sacrifice, can be thrown upon any generation except the generation which is going through the experience. That is my fundamental point.

Now, what is finance? I have already said it is a very simple thing. The only problem which the Ministry of Finance has to face is the problem of raising in terms of money the sums required to pay for the things which it buys; and the immediate general

question is: What are the methods open to a Finance Member? Now, one has got to distinguish between the position of a single country and the position of the world as a whole. There is one resource which is available to a single country which is not available to the totality of countries, and, therefore, the wider the area over which rearmament expands the less this ultimate residual weapon becomes of value to any one of the countries which are rearming. I want to make quite clear what I mean. A single country has got four possible methods of financing a war. Firstly, it can tax its subjects. Secondly, it can borrow from its subjects. Thirdly, it can indulge in a variety of monetary manipulations generally referred to by the generic term of inflation. It can inflate. And all countries taken together can do all these three things. If the whole world rearms, each country can tax its own subjects. If the whole world rearms, each country can borrow from its subjects. If the whole world rearms, each country can proceed directly or indirectly to increase the size of the monetary stream and, therefore, buy more for the moment without any interference on the part of any other country. But since the universe is only a globe circulating in space, the fourth remedy is only open to a few but not to all countries. The fourth method of financing consists of borrowing in a foreign country or selling part of the national property to a foreign country. For instance, the Treasury announced yesterday morning, I believe, that it proposes to take a register of the dollar securities owned by the English Investment Trusts—the first step obviously to what in the last war was called the mobilisation of the international investments of the country—the idea being that, if we are pushed to it, we control, or rather the Government controls, the entire stock of dollar investments held in the United Kingdom and sells them to the United States or some other country. And, alternatively, provided the neutrality legislation does not stand in the way, we can, in fact, add to the stream of things which we add to the pool of armament resources by borrowing in the United States and using the dollar proceeds of the loan to buy additional equipment in the United States or in any other country, such as Canada, in which the dollar is more sought after than the pound. In other words, a single country can borrow from its subjects and abroad, or can tax its subjects or can confiscate the property of its subjects, or can confiscate the property of its subjects by monetary inflation, which is nothing else except reducing the value of the money. But the world, *as a whole,* has not reached that height of civilisation where it can sell dollar securities to the stellar universe. The

world, as a whole, can only tax or borrow or inflate. Now, the theoretical question is: Which of these various devices ought you to use? Upon that particular subject there is no finality. There never will be. And, therefore, instead of trying to explain my own personal opinion about these matters, I want to turn to the second part of my lecture, when this issue as between borrowing or taxing or inflating will become of great importance, and to ask what are the immediately practical aspects of rearmament? Well, here I have one or two things to say.

Firstly, the intensification of rearmament began, at any rate as far as the British Empire is concerned, at a very fortunate moment. It began at a moment when, owing to the turn of the commercial tide, business and production and employment were at a relatively low ebb.

In 1937 business began to recede and, though the depth of the subsequent fall cannot be compared with that of the great depression, it was sufficient to evoke a considerable degree of foreboding as to the future. The announcement of accelerated rearmament was accompanied by an almost vertical upward movement in the index of business activity in the first two quarters of 1939.

We have wiped out as a consequence of rearmament practically the entire period of depression of 1937 to the end of 1938.

Now let me explain why I think from the long-run point of view this is a disaster. From the short-run point of view we have been saved from probably a prolongation of the depression by the expenditure of very large sums by the British Government. But from the long-run point of view the association of recovery with rearmament is surely one of the most sinister things that has occurred, from the economic point of view, in the history of civilisation. It has taught people to associate an increase in their weekly wages, an increase in the level of prices, a decline in the volume of unemployment, with a form of activity which when you look at it from the long-run point of view, is about as useful as taking the entire population now engaged in making munitions and asking them to dig holes in the ground and then fill them up again. For the first time in modern history, the great bulk of the common people, the great bulk of the wage-earners has been led to associate an improvement in their economic conditions with an increase in the production of weapons of destruction. I cannot help thinking that from the economic point of view and from the long-run point of view, this is a disaster. From the short-run point of view it has

been a Godsend. Not only because it has led to an immediate increase in the volume of employment, but because it has taken place at a time when the conjuncture of world events has been such as to prevent the emergence of a whole series of phenomena which would have been extremely unpleasant from the standpoint of Government under very many different heads. Nobody—certainly no economist—could, before the thing had actually happened, have believed that the United Kingdom could spend, or propose to spend, in the course of twelve months something like £730,000,000 on rearmament without profoundly affecting the level of prices and, therefore, the standard of life of the great bulk of the population. £700,000,000 is something like a fifth to a sixth of the national income. The Government is spending, in other words, at the rate of £2,000,000 a day over and above what it would have spent in the absence of a war-threat. That is bound—or every economist would have thought that such a rate of expenditure was bound—to aggravate rather than diminish social discontent.

In the last twelve months the acceleration of rearmament expenditure both in the United Kingdom and in other countries has been very great. Nevertheless, the prices of commodities have barely changed. The main explanation is that, whilst we have increased expenditure on rearmament in Great Britain, there has been a renewed depression in the United States and additional expenditure in England has in part at any rate been compensated by diminished expenditure in America. So far the going has been extraordinarily good. Everybody has experienced the good side of rearmament without having as yet experienced the bad. But what are the bad sides?

The bad sides are two in number—quite apart from the psychologically bad side, of which I have already spoken. The first is this: If there is no war, but if this shadow war continues on its present scale, there will come a time when the amount of investment by Government in munitions of war becomes so great that there is no margin available of unemployed raw materials, of unemployed machinery and of unemployed human beings, when, in other words, you have all the external phenomena of what we call a "boom" but when, in fact, the choice is between a decline in rearmament expenditure and output, or a reduction in the standard of life. And at the present rate of acceleration, that point may not be so very far off. Let me cite to you the unemployment figures. Registered unemployment among the males of Great Britain and Northern Ireland in January of this year was

about a million-and-a-half. In May (and the figures have fallen since) unemployment was down to a million. Now there has been going on in the British press a very vigorous controversy between two ex-colleagues of mine as to when we shall get to the stage when we shall be suffering in Great Britain from an acute shortage of man-power, and the whole thing turns upon one very simple point. What does this million or so-called million of unemployed persons consist of? At any particular moment of time, it is calculated that there are half a million people out of employment in Great Britain because they are changing their job or changing the place where they are living, and *these* are the people who are unemployed for a very short time. That reduces the so-called unemployed army by fifty per cent. straightaway. The question is, what do the other half million stand for? Well, it is argued that it is the old men who are concentrated in the old export industries like cotton and who are simply dying with the industry, whilst another group consists of young men who rose to maturity in the depression of 1929—31. Nobody knows how large these armies are, but supposing the assumption that they are 100,000 each then your army of half a million so-called unemployed reduces at once to a real army of 300,000 people. And as we have reduced the unemployed by half a million in four months at this stage of the rate of acceleration of rearmament, it will not be very long before we will have no unemployment at all. At any rate, that is what some economists of high reputation infer. Therefore, instead of thinking in terms that have become familiar to us for the last few years, *i.e.*, in terms of the past economy with large unemployed reserves available, we have now got to start thinking in terms of real scarcity economics: in terms of national effort which involves more man-power and more woman-power than is available. But for the moment all these problems are being forgotten, because of the immense acceleration of our expenditure and the immense repercussions which this expenditure is having upon the national unemployment figures. Therefore, I say we have got to face the fact that we are approaching a point when the problems of organisation will be much more acute than they have ever been before in the history of the last few years. That is the second point to which I wanted to draw your attention. The first was the psychological danger of associating prosperity with rearmament, and the second danger is that of extending into the new era the kind of mentality which is appropriate to an era which is already disappearing. And the last and, in some ways, the most serious consequence, from the economic point

of view, of this vast rearmament expenditure is simply the frightful distortion of the economic apparatus which it is bringing with it. It is a commonplace of thought among economists of every school that every boom in the past has been characterised by an exaggerated investment of resources in one particular direction. For instance, the 1928-29 boom was associated with a frightful malinvestment in such things as photomatons and artificial silk factories and other things of that kind. We are now engaged in turning an increasing and ever increasing proportion of the plant and equipment and human beings of the nation into one direction and one direction only. And every economist is asking himself what on earth are we going to do if this rearmament process suddenly or gradually comes to an end? Society is faced with very great difficulties of organisation at the present time, but those problems of organisation are nothing, believe me, as compared to the problem of organisation which will arise when you start demobilising the armament workers of the world: because the armament workers of the world are becoming day after day and week after week a greater and greater proportion of the total population of the world, and they are becoming a greater proportion because the expenditure on these things is becoming a greater proportion of the national income of the world.

Well, those are the practical economic sides of rearmament. And now I come to the practical financial sides, and here the ordinary man's question is this: Where are you going to get the money from? To that question certain eminent colleagues of mine have propounded a delightfully simple answer, namely this: Rearmament is bound to pay for itself. The one thing that nobody need worry about at all is where the money is coming from. Now some of you may be familiar with the terminology of the newer economics. What I am going to explain now is the so-called "theory of the multiplier." The argument is this. Supposing the British Government spends £100 on rearmament and employs a single additional workman in the process. That man gets £100 which he did not get before. Consequently he is in a position to spend that £100. Supposing he spends the lot. Then he will employ another set of people whose incomes will also now be £100 and as they have got more money in their pockets they can go and indulge in horse-racing or greyhound-racing or the pictures, and, therefore, the second set of people will in their turn also spend £100 so that ultimately the expenditure of £100 on rearmament by Government results, so long as people are willing to spend the money they get—and they are only too willing to

spend it—in the national income expanding by a multiple of the additional expenditure incurred by the Government. In other words, £100 spent on munitions may actually grow according to the size of the multiplier and the only dispute between Mr. Keynes and some of his colleagues is how much the multiplier is? So long as the people spend, the additional income must always be larger than the additional expenditure by the Government, so that, if the multiplier is 5, an expenditure of £100 by the Government leads to an increase in the national income of £500. If the multiplier is 10, the spending of £100 by Government means that the national income increases by £1,000. And, therefore, the fashionable answer to the question "Where are you going to get the money from?" is perfectly simple. The fashionable answer is: The more you cast your bread upon the waters, the more shall be returned to you. Only go and spend a thousand million pounds on rearmament, then, provided the multiplier is sufficiently high, you cannot help finding the money. Therefore, you can always borrow or tax as much as you like. I do not know whether I have made the point clear. The point is that the modern school of economists argues that we have all been breaking our heads on a problem which is as simple as falling off a log. If you ask where the money is coming from, they say: All you have to do in order to get the money is to spend more, because the more you spend and the higher the multiple, the more you get back. Now, I think all of us ought, as citizens, to inquire into what is true and what is untrue in this particular argument. I won't go into any controversies. I merely want to point to the limitations of the doctrine. I believe that within the limits of the argument it is perfectly true. It is quite true that, if the Government employs one additional munition worker and he goes and employs more people who run off to picture palaces and what not, then the additional pound spent by Government will add more to the national income in the long run than £1. It is based upon the assumption, which I won't investigate in detail, that Government expenditure of this kind is purely additive. That you can add this expenditure to existing expenditure without having to subtract it anywhere else. But that is not always true. For instance, in the United States, in the last five years, the Government of the United States has been proceeding precisely on the assumption that this doctrine is *universally* true, but it was forgotten that all spending of a lot of money in one direction does deter a lot of people in other directions, so that the total repercussions have not been as favourable as was thought. But the really important point from our stand-

point is that the mere fact that when a Government spends £100 the ultimate effect upon the national income is going to be more than the addition of £100 will have thrown no light upon what is the practical problem from the standpoint of the Chancellor of the Exchequer, namely, if the national income is going up and if I have got to pay for more munitions, how am I going to get the money? The income may be there. It may be increasing. But am I going to get my fraction of the additional national income by taxing or by inflation or by loan? The practical problem for Sir John Simon is not whether or not the total national income is going up. It is quite true it is going up. Very rapidly. The practical question for Sir John Simon is: If the national income in 1939-40 is going to be £4,000,000,000, instead of £3,000,000,000, am I going to get the additional thousand million that I want by taxing or by borrowing or by increasing the monetary stream? And all these fashionable doctrines intended to reassure the public about how wonderful an age it is in which we are living throw no light whatever upon what is the fundamental point from the standpoint of any ministry of finance. How are we solving the problem in Great Britain? The answer is that the weight of unofficial—and to some extent of official—opinion is being thrown on the side of increasing borrowing as against taxation. And I want to say quite frankly that here is one of the real conflicts—although a veiled and concealed conflict—between what it is right to do, and what the public thinks ought to be done. The decision to borrow rather than to tax is based primarily to my mind upon the good old American maxim, "Don't rock the boat." Don't upset the public. Therefore, as the public is liable to be upset if the income-tax is raised by another shilling, don't raise the income-tax. Borrow the money from the public or from the banks, and if you *have* to borrow, borrow from the banks rather than from the public because the longer you put off either additional taxation or additional borrowing from the public, the longer will they welcome the rearmament which is going on. Now, having been brought up to some extent in the austere school of the British Treasury, I think this doctrine is a fatal doctrine. If it is true that we are shortly going to be faced with a real shortage of equipment, human man-power and raw materials, what we ought to do is to deprive the public of their ability to compete with the Government at the earliest possible opportunity. I have tried to explain how you can do this through rationing and through totalitarian methods, and that you can also do it through a rise in prices. But there is a third and the simplest way of doing it, which is to

deprive the public of the money which they might otherwise put in competition with Government by means of higher taxation. For, if a gentleman whose income rises from, say, £1,000 a year to £1,500 as a consequence of rearmament expenditure, has to hand over the entire £500 which he has just made, in the shape of supertax, he cannot afford to buy his wife a new motor car. That, of course, is a very regrettable fact. But, nevertheless, this is the ultimate effect of the tax system that the plant required for the motor cars can be turned to the manufacture of aeroplanes and therefore the simplest way of depriving the public of the possibility of competition with Government—which, from the economic point of view, is the same thing as saying that the best way of achieving the desirable utilisation of economic resources—at the present time is to tax and tax and tax. But you may take it, I am afraid, that this austere doctrine is not going to be followed either in the United Kingdom or anywhere else. But it has, nevertheless, you will agree with me, profound practical consequences.

So far I have talked about certain theoretical and practical aspects of rearmament. I want to finish by asking: What does it all boil down to in terms of statistics? I would like to give you some answers. In 1935-36, taking the British fiscal year as a basis, the aggregate national expenditure upon Defence was £137,000 000. The estimated expenditure at the begining of this fiscal year, 1939-40, upon Defence in the United Kingdom was supposed to be £655,000,000. Now, last Friday, Sir John Simon, in moving the third reading of the Finance Bill, announced that in the forthcoming financial year, 1939-40, expenditure upon national Defence would be in the neighbourhood of £735,000,000. That is something like one half the total expenditure of the United Kingdom on any kind of governmental activity. Now, if you ask what proportion of the total national income are countries like England and France and Germany spending upon rearmament at the present time, of course the answer is not very simple—first of all because we have no accurate statistics of national income and secondly because national defence and rearmament expenditure are not self-explanatory terms since the definition of defence varies in different countries. Nevertheless, the other day the International Chamber of Commerce held its biennial meeting in Copenhagen, and a very distinguished French industrialist tried to answer the question of the proportion of national income which the nations are spending on rearmament as compared with what they did in the old days. In 1913, four

per cent. of the German national expenditure was upon the armed forces of the State and Germany was already in 1913 a pretty heavily armed power—at least we thought so in those days. At the present time, the expenditure is probably between twenty and thirty per cent. of the German national income. France in 1913 spent five-and-a-half per cent. of the national income on defence. In 1939 she will probably spend twenty per cent. In Italy in 1913 some three per cent. of the national income was devoted to expenditure upon armed forces. In this year the estimate is somewhere between twenty-five and thirty per cent., and the probability is that if we are really going to spend £750,000,000 or so on national defence in this year, since our national income is likely to be between £4,000,000,000 and £4,500,000,000, we are also going to spend something between twenty and sixteen per cent. on national defence. Taking the whole of Europe and the whole world into account, because you must remember that the Dominions are also accelerating the rate of expenditure, so is the United States—it is probably unsafe to say that anything less than one-fifth of the total income of the more advanced areas of the world is being devoted at the present time to the purposes of contingent warfare. Well, of course, when you get to figures like £750,000,000 it means nothing whatever to the average man, any more than seven thousand shillings mean anything to a child of three. I have, therefore, tried to compare this figure with some figures that may be more familiar to you and then one gets to some rather startling results. For instance, on March the 31st, 1914, the last pre-war fiscal year, the total national debt of the United Kingdom including unfunded debt and the capital value of annuities was £694,000,000. That is to say the total accumulation of debt less repayments through sinking fund throughout the nineteenth century was less than one year's expenditure on rearmament at the present time. I cannot vouch for the complete accuracy of my historical recollection but I think the national debt after the battle of Waterloo stood at £680,000,000. The cost of the Boer War was, I think in terms of debt, £300,000,000, roughly about half of what we propose to spend in the year 1939-40 upon a single military year's rearmament. But if you compare this figure of £750,000,000 with some other figures you realise what an enormous drain upon human welfare these figures represent. The total expenditure in every part of the United Kingdom upon University education in the year of grace 1936-37 was £6,500,000. The expenditure of local authorities in England and Wales (including national subventions) for all forms of education in the same year

was £96,000,000: that is to say, considerably less than one-seventh of the total expenditure on rearmament. If you want to know the expenditure upon general hospitals, it was in the year 1936-37 £6,000,000; that is to say, you could increase the expenditure upon hospitals in Great Britain by a hundredfold and yet not be within £150,000,000 of what we are going to spend in the course of this year upon rearmament.

And if you take Indian figures, the comparisons become almost grotesque. This figure of £750,000,000 or so upon rearmaments is equal to seven times the annual expenditure of both the Provinces and the Central Government. It is £100,000,000 greater than the total capital at charge of the entire Indian railway system. And when I compare it, of course, with other fields in India, the comparison becomes still more grotesque.

Well, ladies and gentlemen, that is why an economist speaking of rearmament is aware of the fact that he is a member of a lunatic asylum.

DISCUSSION

General Sir Bertrand Moberly: Would anybody like to ask Dr. Gregory any questions?

Mr. Puckle: I should like to ask where the original £100 comes from.

Dr. Gregory: Oh, that original £100 can come in several ways. You can borrow it from the banking system. There are various complexities which I won't go into but the simplest way of accounting for the first £100 is this: The banking system always keeps a cash reserve. If the banking system reduces its cash reserves by £100 and hands it over to the Government, the wheels can start turning. There are other alternatives but I take the simplest.

Mr. Tymns asked: Why should the reduction of unemployment be regarded with apprehension?

Dr. Gregory: Well, my answer to that is quite simple. I am sorry I gave a wrong impression. I do not regard the reduction of unemployment as *in itself* a bad thing, but I do say two things about it. Firstly, it would be infinitely better if the reduction of unemployment would come in consequence of expansion in some direction other than rearmament. Secondly, is it the case that the day when we have a really serious problem of rearmament is remote? After all, we have been brought up to think in the last six or seven years that there is a vast reservoir of people wasting

away. That way of thinking is out of date and it is just as well to face the fact that the economics of scarcity of human labour are very different from the economics of unemployment. That is all I meant.

Lieutenant-General Sir Bertrand Moberly: Ladies and gentlemen, I think we must thank Dr. Gregory for a most extraordinarily interesting lecture, which certainly will give us a great deal to think about and I only hope that we won't feel really so pessimistic as possibly he might have led us to feel this evening. When we think it over, rearmament is a terrible problem when it all comes suddenly and the answer to future generations must be to keep the level steady and not to disarm and rearm by fits and starts as we seem to have been doing since the last war. I hope you will all join in thanking Dr. Gregory very much.

THE APPRECIATION

By Brigadier C. A. L. Howard, D.S.O., M.V.O., M.C.

It was with the liveliest interest I read Brigadier Howell's important article, "The Form of Appreciation and Orders," which appeared in your July issue; this paper is concerned with Brigadier Howell's remarks on the Appreciation aspect of the article only, a subject, among others, on which no one is more competent to write, and on which his views, if I may say so, are worthy of the greatest respect. The Appreciation is the foundation, the walls, the windows, which go to produce the completed edifice of the plan—which, in turn, is the culmination of all our teaching and training in leadership—and as such its importance is paramount. In its present form it was originally evolved as a "guide" to the mental process of arriving at a reasoned, logical, and, consequently, sound decision in any given set of circumstances; indeed, it was claimed that no one who observed the rules could fail to reach the best conclusion in the shortest time. In due course, in accordance with the best traditions of the British military mentality, the guide was reduced to the usual basis of a precise drill operated "by numbers." The greatest problem facing our trainers in these "extensive" days is the lubrication of the military engine; and anything that savours of our besetting sin, mental rigidity, is anathema. But, curiously enough, the appreciation of the situation is the great paradox, the one occasion on which a precise formula can usefully and legitimately be applied to a mental process; the reason is not far to seek in that the formula in question is less a precise drill than an analysis of a reasoned line of thought, and, therefore, of a normal mental reaction.

I think it is accepted that the introduction of the appreciation has raised the standard of leadership to a level which it could never otherwise have attained; it caters for all types of mentality; it restrains the imaginative mind and prompts the unimaginative; it guides them both into sound and practical channels through a subsoil of hard facts. Yet many of us have felt for some time that our existing line of approach is due for an overhaul; difficulties do exist, and it is essential they should be removed. Simplicity and absolute clarity are the keynotes of any military mental process, and yet, as Brigadier Howell maintains confusion of thought, and consequent failure in its logical application, are frequently

encountered. He suggests ways and means by which these difficulties may be overcome. He advocates the retention of the object in its present key position and no one, I think, will quarrel with him here. He suggests the next step in the sequence should be the consideration of a general plan, and maintains that this follows our natural inclination; he further implies that "factors affecting the attainment of the object" occupy an unduly influential position in the development of the plan, and should be relegated to secondary rank, to be considered only after a general plan has been formulated. Although there is naturally a great deal in this conception, I cannot follow him all the way. It seems to me that to formulate even a general plan, without considering factors any one of which may subsequently turn and stab it in the back, is to tempt providence. I am reminded of the perfectly authentic case of the general—now, unfortunately, no longer with us—who handed his staff a slip of paper with the remark, "Here is my plan; all you blokes now have to do, is to write the appreciation." The fact that our natural inclination is to get down to the business of making plans is not, in my view, sufficient reason for ignoring or minimising what may be vital factors. If, in pursuance of our natural inclinations, we were to produce a better plan by sidetracking or overriding relevant factors, I should agree every time. But do we do so? Do we gain anything? Do we not rather lose? Do we simplify the process? Do we not rather complicate it further? None-the-less, I agree with Brigadier Howell that all is not well with the "factors" paragraph; and it is in connection with this paragraph that confused thinking and loss of sequence most frequently occur. In the first place the heading, "factors affecting the attainment of the object," is a misnomer; at this stage, these factors do not necessarily affect the attainment of the object in the smallest degree, but they do affect the *method* of attainment. For instance, to quote Brigadier Howell's example, "The ground is open and any advance across it will be liable to suffer heavy casualties." Assuming an attack, that particular factor will only affect the attainment of the object if it is decided to attack over that particular ground; if it is decided not to attack, or to attack in another direction, the factor is irrelevant. On the other hand, when "courses open" come to be considered, this factor assumes enormous importance and will probably decide the commander not to "attain his object" by attacking over the ground in question. This is the correct use of the factor. And this brings me to another common cause of confusion; the above quotation, with its

deduction, really decides a "course open," and there is often difficulty in determining at what point "factors" end and "Courses open" begin. The "appreciator" often finds that, by the time he reaches the "courses open" paragraph, he has already discussed "courses open" in the "factor" paragraph, and it seems foolish to him to repeat what he has already considered; he feels he must have committed the court-martial offence of putting something in the wrong column, and tends to lose his nerve and, with it, his train of thought! Can these spanners of confused thinking be removed from the machinery and smooth running be restored? Fortunately, they can, and very simply, by a reversion to the mental process of appreciation—as it was originally intended to be implemented; by the relegation of the "factors" paragraph to its correct perspective and function. To elucidate: When the appreciation was introduced in its existing form, the "factors" paragraph was intended to comprise a summary of prominent points which, it was important, should not be overlooked, and which, it was essential, the "appreciator" should keep in the forefront of his mind; the object was to tabulate all available facts and information, in readily accessible form, for ready reference—a normal, practical and indispensable form of *aide-memoire* in the consideration of any problem whatsoever. So far so good; presently, however, someone evolved the high-sounding axiom that no factor was of value unless a deduction could be drawn from it, that this was the test of a good factor, and that in future the process should be completed and the deduction drawn and recorded.

This displays a complete misunderstanding of the mental process and of the function of the factor; it is the seat of all the trouble—the appreciator finds it difficult to understand to what purpose he should draw a deduction at this stage; indeed, he very often finds difficulty in drawing a deduction at all, and the result is mental confusion. The axiom is true as far as it goes, but it is only a half-truth, and ignores what is the crux of the whole question, *i.e.*, no deduction is of any value except in its relation to a tentative or concrete course of action; it is the subconscious realisation of this fact which is responsible for the mental confusion as between "factor" and "courses open" paragraphs, *e.g.*, Brigadier Howell in the example above, which I have borrowed from him, has had to introduce a tentative course of action into his "factor" to enable him to draw a deduction—he could not have drawn one otherwise—yet we have not yet even begun to think of courses of action! Is it any wonder the appreciator is sometimes bewildered?

As I see it, the "factors" paragraph is intended to comprise a summary of known facts in categories such as enemy forces, our own forces, country, time, space, etc., and any other important point which requires to be emphasised; deductions obviously do not come into the picture at this stage; the heading should be changed to read "Notes" or "Important Points" or "Relevant Factors"—probably the last would be the most suitable as relevance is sometimes overlooked, and a reminder would not be out of place.

The "Courses Open" is the discussion paragraph; here "factors" are applied and it is at this stage that deductions are naturally evolved: *e.g.*, to quote once more Brigadier Howell's example, the "factor" would be "The ground is open;" in the "Courses Open" paragraph the ground would be considered in its relation to an attack over it, and the deduction would be that "any advance across it will be liable to suffer heavy casualties." The appreciator may here throw out this course, or he may go on to consider it further and to draw deductions from other relevant factors, and will then be in a position to discuss the pros and cons, and decide whether this attack is feasible, desirable, etc.; eventually, if it is still "in the hunt," he will weigh it in the balance with other "courses" and will then make a selection, having covered all the ground.

This seems to me a simple, straightforward and intelligible process; it strikes me as natural and quite clear; it is practical and easy to handle; there need be no complications or mental confusion.

Personally I see no reason to amend the present form of appreciation, if it is applied as it was originally conceived.

We have a good thing here; do not let us weaken the machinery by tinkering.

NORTH-WEST FRONTIER POLICIES

By Major W. E. Maxwell

[*A lecture delivered to members of the Institution at Simla on the 13th July 1939.*]

The Chairman, Lieutenant-General Sir Roger Wilson, K.C.B., D.S.O., M.C., introducing the lecturer, said:

"When any one is rash enough to lecture on the North West Frontier, the question is always asked: "What does he know about it?" No doubt it has been asked in the case of our lecturer to-day. The answer is that, judging by results, nobody can possibly know less about it than the experts who have been responsible for the frontier during the last few decades.

With that mild attack on the pandits of the Army Air Force and Political Department who may be among us to-day, I will leave you in the very capable hands of Major Maxwell."

Lecture

In the first place, I must stress as emphatically as I can that this lecture is entirely personal. It is for me a very dangerous experiment to run the risk of exposing any knowledge I have about a subject so profound and complex as the North-West Frontier and heaven alone knows if—when I finish this paper—you will put me down as a fool, an enthusiast, an amateur, a professional—or any combination of these terms which may arise in your minds.

I would like to admit that I am a fool to tread a path which has fooled so many angels before me; I confess I am an enthusiast—as we all are who have lived in India for some years and tried to understand this particular problem. As for being an amateur on the subject, I would quote an official document addressed by the Government of India to the administration responsible for the North-West Frontier Province: "It appears to the Government of India that the time has arrived when it becomes of extreme importance that an effort be made to bring under our control, and, if possible, to organise for purposes of defence against external aggression the great belt of independent tribal territory which lies along our north-western frontier and which hitherto has been allowed to remain a formidable barrier against ourselves."

These are the encouraging, heartening words that all servants of Government love to hear. All of us want our statesmen on the wireless or in newspapers to declare a positive programme of progress; and you may be quite certain that when the Government of India declared this invigorating policy a prayer of thankfulness

went up to heaven from all soldiers and civilians engaged on the far side of the river Indus just as enthusiastically as our hopes and prayers are swayed to-day by any decisiveness shown by our statesmen in larger defence measures.

That it was declared in this official language fifty-two long years ago in 1887, when the Punjab Government was officially in charge of all administration north of Delhi shows—when judged by the progress made—that I am not so amateurish after all. I see now that this argument has driven me logically to the imputation that the Government of India is an amateur one; I will amend this word and say "immature," because from my slight acquaintance with Simla and Delhi for the last nine years, and having seen the extraordinary changes which occur every year in all the great official posts I cannot see how the Central Government can ever achieve maturity.

As for being a professional on the subject I there lay myself open to personal abuse and criticism. The little knowledge I have is dangerous because it is so personal. All I know is a little of Quetta at the end of the war; later Chaman where I had a chance of meeting the Achakzais and Political officers almost as a mediator when they both were at each others' throats over two annas, and where, incidentally, my wife and I found that the only place to ride on decent going was about a mile over the border. That is all my Baluchistan experience. In the summer of 1923 I served at Saidgi in the Tochi with no great distinction but certainly with an increasing amount of knowledge and interest. It was a desperately boring experience for young officers despite the long days on road protection duty. Once the prison doors were slammed at six o'clock each evening on the fort our interests were confined to writing letters, talking, drinking or studying for the Staff College. It was so dull that three of us, one night—and I tell you this story in the strictest confidence as both my colleagues now occupy big places—stole three sheep from a neighbouring convoy of mutton going up the road. It sounds a silly story—but there are probably only two people—both Australians—in this audience who have ever fielded a live, full grown sheep standing in the middle of an apron of barbed wire at midnight with armed sentries prowling through the flock. I had darkened my face with "Kiwi." As my first sheep knocked me over and my pants were torn to ribbons, I thanked God that sheep, like the Navy and all good soldiers, were dumb when frightened. I tell the story only to show how desperately boring these camps become for young officers.

That was my first earned medal, dated 1923.

In 1929 and 1930 I was again in Waziristan, in Razani and the reoccupied Wana, and found the country pacified to an extent which made all the supporters of the Forward Policy lie back and purr with satisfaction. I remember motoring from Wana to Dera Ismail Khan and having lunch by myself in the Shahur Tangi. At the time I was working for some wretched examination so I climbed a hill, spread a map and tried to envisage one of the most stirring battles in our Frontier history and the scene, just two years ago, of one of its greatest tragedies.

A few years later I visited Kabul where there was a splendid British Minister whose opinion of the governments in London and in Simla had to be heard to be believed. Naturally I sat at his feet and imbibed knowledge. He had a very great Imperial outlook on the vital importance of a friendly Afghanistan, and he reiterated this aspect of international policy so often and so logically that I became bored and thought he was making a fuss about nothing. Last year at home during the September crisis, when a world war seemed inevitable and I was wondering what the reactions in India would be, one of the few bits of silver lining I could see was that British-Afghanistan friendship and mutual respect which have grown up and grown strong on the foundations laid after 1919.

It is therefore with this slight knowledge as my personal background that I am now going to offer some eggs to my grandfathers among you to suck.

* * * *

The International Aspect

Those of us who are careless, ignorant or uninterested in the frontier can always shut our eyes and put our fingers in our earholes—to prevent sight or sound of this unfashionable subject. Kipling and Winston Churchill managed to give it glamour-appeal forty years ago to a British public who at that period required the romantic, adventurous stimulus which is now supplied by the cinema.

Kipling focussed British attention on a part of the Empire which had been neglected and unsung; Mr. Churchill, by breaking certain rules and regulations which have made his character suspect ever since, attracted, through excellent journalism, the attention of thinking people. Both Kipling and Churchill are Imperialists in the best sense of that maligned word. No matter what we latter-day ideologists—what a word!—may think of British imperialism in the past, no matter how our consciences

are apt to be pricked by the queer practices, the rough and ready justice meted out to our early colonies and dominions, no matter how we deprecate our economic excesses of the last five hundred years over the seven seas of the world—we are all heirs to that system, and we have all been brought up to improve that system and fortify it, because we believe it is a good thing.

Therefore, as regards India, my attitude is slightly diehard. While prepared to be friendly towards its inhabitants and my fellow subjects I resent being treated as a hostile by its politicians. This anti-British policy is being pursued and has grown to large dimensions even in the last twenty years. Its tendency is to increase with the growing communal dissension between the Hindus and Muslims, and we should guard ourselves against it.

One of the danger spots of the British Empire is this small frontier stretching about 1,000 miles from Chitral to Persia, of about 25,000 square miles in area and inhabited by some three million Pathans. "The North-West Frontier is not only the frontier of India;"—the Simon Commission reported—"it is an international frontier of the first importance from the military point of view for the whole Empire."

The fundamental reason for this importance is Islam. There are roughly about 300,000,000 Muhammedans in the world and all of us here know the great unifying force of their austere and vital religion. A bad slip, a blunder in diplomacy or a military reverse in the little Tochi valley might have its reverberations in Kabul, Teheran, Baghdad, Haifa, Ankara, Cairo, and as far west as Morocco. With all these Muslim peoples the British Empire has close contact and one of the few keystones discernible to the layman in British foreign policy has been friendship with the Muslims of the world. It has been a friendship always worth having and working for. During the last war when cultural relationships between world Muslims were not so close as they have since become, roughly half the world population was pro-ally and the remainder either neutral—like Persia—or pro-German. It needs very little reflection or imagination for us to understand clearly how important and indeed how vital for our preservation is this question of friendship with Islam.

In the event of a general war we will always have this running sore of the North-West Frontier to remain a source of annoyance—perhaps of deadly infection—if we go on accepting its condition as chronic and incurable.

Before leaving the international aspect of the subject it might be convenient now to refer to Afghanistan—as this country is as much involved in the frontier's pacification as we are.

I believe I am correct in saying that it was Napoleon who first made the British take a serious interest in the defence of India and to realise that friendship with our neighbours, Persia and Afghanistan, was part of that defence. After Marengo in 1800, Napoleon and his ally, the Tsar of Russia, examined a scheme for the joint invasion of Hindustan. This particular scheme was dropped when the Tsar died the following year, but until 1809 energetic diplomatic and military French missions were busy in Persia and the Indian Ocean stirring up trouble for the British.

Napoleon broke his word to the Persians in the Treaty of Tilsit in 1809 and French influence subsided considerably, creating a favourable atmosphere for the Viceroy, Lord Minto, to conclude a firm treaty with Afghanistan and Ranjeet Singh, the great Sikh ruler of the Western Punjab. Thus was the "buffer" state defence policy first initiated.

Looking back one hundred and thirty years ago to these our first relations between India and the states beyond the Suleiman Ranges (Turkey, Arabia, Iraq, Iran, Afghanistan are in their places to-day) it is easy to realise that any enemy of England who either by conquest or alliance gains solid footing there will play a dangerous role in either diplomacy or war.

Our relations with Afghanistan during the last hundred years have been pugnaciously flirtatious based on that common enough theory of courtship that the best way to woo a girl is to treat her rough. The less said about the first Afghan War of 1839-40 the better. Ranjeet Singh pinched Peshawar from the Afghans and Lord Auckland suggested that Dost Mohammed should discuss the matter amicably; the Russians intervened with their active support for Dost Mohammed, and war—one of the most disastrous in our history—ensued. We began the war to replace Dost Mohammed by Shah Shuja, and we ended it by replacing Shah Shuja by Dost Mohammed at a cost of 20,000 lives and £15,000,000 sterling. That should have been a lesson to us but unfortunately it was not. For the next few years confusion reigned.

The Afghans joined the Sikhs against us in the Second Sikh War on the promise of regaining Peshawar. Thereafter, we supported the Afghans against Persia, and then Sir John Lawrence, the great protagonist of the close-border policy, appeared on the scene and due to his diplomatic handling Dost Mohammed remained staunch during the Mutiny. Until 1869 our relations were uneventful. Dost Mohammed was succeeded by his son Sher Ali. Gradually however a deterioration set in and by 1875

there was marked coolness between both countries. This was more the fault of Sher Ali than of the Government of India. In England in 1874 Disraeli became Prime Minister, and Salisbury Secretary for India. This brought the Russian bogey back on the stage to the delight and satisfaction of the Forward Policy School, who were all always for advance over the North-West Frontier passes to meet the Russian army on Afghan soil. That, I think, is the origination of what we now loosely call the Forward Policy.

The first step in this forward movement was the appointment of a British Resident in either Kabul or Herat to give England political domination in Afghanistan, and the Secretary of State, Lord Salisbury, pressed his views upon the Viceroy, Lord Northbrook. The Viceroy, supported by his council and the earnest advice of his frontier officers, opposed this policy and warned the home government that it was likely to provoke war. His advice was unacceptable so he resigned, and Lord Lytton came in his stead. In 1878, we declared war on Afghanistan for refusing to accept a British Envoy, and in 1879, having defeated the Afghan forces in the field, a treaty was signed giving us the right to have a Resident at Kabul. Three months later this resident was murdered in Kabul and our troops again advanced to another campaign of great glory but little profit.

Abdurrahman Khan, a nephew of Sher Ali, was discovered and put on the throne and, after Roberts' great victory at Kandahar over Ayub Khan, both countries settled down to lick their wounds.

For the next ten years, when Abdurrahman was consolidating his position, a serious effort to stabilise our frontier conditions was made by the demarcation of the Durand Line in 1894. A growing willingness to accept the fact that Afghanistan was an independent country became discernible in the attitude of the home government. This undoubtedly was due to the character and personality of Abdurrahman, the great Amir. Official history slurs over with neat dexterity the appalling amount of intrigue carried on during this period by the *Maliks, Powindahs* and *Mullahs* of all our Frontier tribes with the authorities in Kabul. For Abdurrahman, then finding his feet, it was obviously safe to placate with money any influential leader on the precarious border of the two territories. His successor, Habibullah, preserved this irritating, suspicious and wholly successful policy during the Great War—and we, whose policy was far plainer at that period in our history than it can ever be again, missed the bus . . . .

Just as easily as we created at Versailles the countries of Czecho-Slovakia, Memel, Austria and a small city called Danzig—just as easily could we have awarded Afghanistan her border tribes and probably avoided the third Afghan War. Until his assassination in 1919, Habibulllah remained the staunch friend of England despite many temptations, and all of us know how valuable that friendship was in 1914 and the following years.

The Third Afghan War of 1919 was a mistake by the Afghans this time, based on faulty information regarding the internal situation of India, for which Amanullah, the impetuous young Amir, eventually paid for in exile.

From this brief sketch of Afghan history three points emerge to which I may have to refer again:

1. Friendship with Afghanistan should be the keystone of our frontier defence.
2. During the last century the Close Border policy was more successful more economical and more in keeping with modern conceptions of statesmanship than the adventures to which a forward policy kept driving us.
3. The circumstances in which the Durand Line was fixed.

* * * *

The North-West Frontier

As I begin this chapter of my lecture the more overwhelmed I feel by its intricacies and its dangers for one so ill-equipped in knowledge and experience to draw conclusions.

Here is an outline map showing Chitral in the north and Fort Sandeman in the south. Here is the river Indus, which since the very dawn of civilisation—the remains are still being dug out of its banks—has been the natural frontier of India. Here are the rich Peshawar and Derajat plains which lured the Sikhs and then the farm-loving English to cross the Rubicon and settle. Here is the Sikh demarcation which we call the frontier of our administered areas. And here is the Durand Line—a mysterious frontier marked with white-washed piles of stones stretching for over a thousand miles.

Between this Sikh Line and the Durand Line live a conglomeration of barbarian tribes whose record of heinous crime—murder, rape, assault and appalling treachery—during the last hundred years is probably unequalled in any other region of the world. They are like cornered rats fighting for their existence with only the weapons they know—tooth and claw. The history of the Pathan races is obscure. There is a picturesque legend connecting them with the lost tribes of Israel, but there is nothing

to support this theory except a semetic type of feature in some of the tribes, and the name "Yusufzai" which has the same root as Joseph.

It is not possible in a few words to describe the characteristics of these tribes. Those of the plains brought up in contact with civilisation are very different from the warriors bred in the harsh hills. The character of the trans-border Pathan is of a stronger fibre than that of the plainsman. Life in the rudimentary republics of the tribes develops self-reliance, resource, courage and a Spartan contempt for the luxuries of civilisation. Blood feuds, faction fights and raiding sharpen the wits and make them opponents always worthy of our steel. There is no caste; every man is as good as the next. The arrogance of the Pathan you see swaggering about the towns of India is not assumed; it is part and parcel of his character. Their most intractable characteristic—and to us the most incomprehensible—is their contempt for human life. That attractive person, with whom you can laugh and joke and make friends, will—for a trivial imagined slight—put a bullet through your back. The history of the frontier is full of such tragedies.

Their system of government—if such words can be used at all in this connection—is far more democratic than that of the great democracies. Each tribe is a small republic acknowledging allegiance to no one—neither to Kabul nor to Delhi. There is complete equality among the tribesmen. This principle was carried so far that lands used to be redistributed every thirty years to prevent any tribesmen exploiting his neighbours. As regards the law there is a system called *Puktun-wali*—the law of the border which governs the relations of tribesmen among themselves and of one tribe with another. In case of dispute—if the case is not settled out of court beforehand with a bullet—the matter is decided by a *Jirga* which may consist of the whole tribal body. The Pathan has a remorseless code of honour with its rooted customs of asylum and intercession, hospitality, safe-conduct and the inherited vendetta of his forbears.

Most tribes are honeycombed with feud and faction which is the main fundamental reason for their cultural, educational and economic backwardness. They appoint *maliks* to represent their interests, but as often as not repudiate the decisions taken on their behalf. The only strong common bond that links them together is their religion, and that is often exploited by their *mullahs* for irreligious purposes.

In this lecture to-day I cannot cover the whole range of this great subject. I am not going to refer to Baluchistan except to draw the red herring of Sandeman across my path. I have not time to recount the history of our successes and failures with the Swatis, the Yusufzais, Orakzais, Mohmands and Afridis, nor to draw any conclusions therefrom. Instead I would like to concentrate for a little on Waziristan. I have been able to study this problem in a privately published monograph written a few years ago by a distinguished frontier officer. Reading this book I found to my joy that it narrated in miniature all the policies which have been attempted, tested, tried and abandoned on the North-West Frontier from 1860 to the present day. That its main conclusions are hotly contested by another equally eminent political authority only shows that one can almost say what one likes on the subject and find supporters and antagonists.

* * * *

Waziristan

For convenience sake I will divide the history of Waziristan into three parts: The first period from 1860 until 1895: the second period, the reign of the Mulla Powindah which lasted until his death in 1913: and finally, developments since the war.

1. *1860—1895.*—In reading the history of this turbulent country, one of the most striking features is not the military expeditions, nor the tragic murders which stain most of its pages; but the faith, energy and devotion of political officers in their pursuit of a solution to the problem which faces us, despite all their efforts, as stubbornly and as bleakly to-day.

In 1865, a Major Graham, Deputy Commissioner at Dera Ismail Khan, recognising that hunger was at the root of the trouble carried through two schemes—one for colonising certain waste lands in his district by Mahsuds and the other for enlisting a few for border service. This was in the nature of an experiment and, though not unsuccessful, was not extended on account of the Amir's disapproval. A Major Macaulay revived it in 1877 in the Gomal, making the Mahsuds responsible for the pass. About this time the Mahsuds captured a Hindu child, and this Macaulay—one of the great frontier administrators—put the whole tribe under their first blockade, which was so surprisingly successful that they submitted unconditionally after six months and brought the child in saying, "For God's sake take away this curse from us."

Feeling he was on the crest of the wave, Macaulay then carried out a more ambitious scheme and colonised the town of Tank with one hundred and eighty-three Mahsuds and their families.

But the thought and sight of this peaceful community were too much for the other Mahsuds who came down in the night and sacked the town of Tank utterly.

A blockade for two years, followed by an expedition, restored the uneasy peace for some years during which political officers devised new and ingenious methods for the distribution of tribal allowances. The subject of tribal allowances is a study in itself which I do not pretend to understand, but its place in our frontier policy is one of great importance.

In 1888, a Mr. Bruce became Deputy Commissioner under a Mr. Ogilvie, who was Commissioner, and very soon things began to hum. Bruce effected a new settlement with the tribe which was approved by a *jirga*, claimed to be the first representative *jirga* ever produced by the Mahsuds. In 1889, Mr. Bruce, the energetic pupil of Sir Robert Sandeman, now got going properly and convinced all concerned that the Sandemanisation of Waziristan was both desirable and practicable. The Viceroy, the Commander-in-Chief and the Governor of the Province—Sir Robert Sandeman—toured the Derajat, explored part of the Gomal, and a practical scheme for opening up this route to Khajuri Kach was formulated.

Next year Afghan emissaries became active and divided the tribes into pro-Afghan and pro-British factions, and the old tale of outrages started again. Afghan influence, backed up occasionally by Russian money, was always dominant, and the absence of any fixed border made British control or influence in the hinterland impossible. This untenable position, existing the whole length of the border from the Pamirs to Persia made a forward policy impossible. The demarcation of an international frontier between the two countries became essential, however distasteful it was to the Amir. In 1893-4, the Durand Line was fixed. I might say here that this demarcation was the cause of many of our subsequent expeditions. Its most serious defects are the exclusion of the Kunar Valley from the British side, the division of the Mohmands between the two governments, the denial of a strip of territory from Lalpura to the Sufed Koh which would have helped the strategical encirclement of Tirah, and the retention by the Afghans of the Waziri province of Birmal. The Mohmands, the Afridis, and the Wazirs have all got safe bolt holes into Afghanistan when they are naughty.

To return to Waziristan—outrages continued and the government's policy wavered from strength to weakness and back again, and the Sandemanisation experiment received a knock-out blow

from which it never fully recovered on the 3rd November 1894 when two thousand Mahsuds, under the Mulla Powindah attacked the recently occupied Wana.

Another successful expedition of three columns from Wana, Jandola and Bannu entered the country and inflicted about one-and-a-half lakhs worth of damage. The Mulla fled to Afghanistan. Garrisons of regular troops, intended to be permanent, were left at Jandola, Sarwakai and Wana. The indefatigable Mr. Bruce assumed chief political control and produced a new settlement. He had now been for seven years in close contact with these tribes and was an expert on their problems. He recommended the increase of Mahsud allowances from Rs. 51,000 to Rs. 61,000, and produced an elaborate distribution list which has been the basis for many subsequent lists. It is also regarded by the *Maliks* as a warrant of precedence and gives rise to just as much heart-burning. Mr. Bruce also recommended the building of a strong central cantonment at Razmak with outposts at Sheranna and Wana. He got snubbed for this proposal as it was "contrary to the existing orders of Her Majesty's Government."

2. *The Mulla Powindah.*—From now, 1895, until the outbreak of the Great War, the history of Waziristan centres round that remarkable man, the Mullah Powindah. For nearly twenty years this stormy petrel ranged from Bannu to Kabul in his intrigues against the forward policy in Waziristan. He succeeded only too well.

Lord Curzon summed up his character in the simple phrase "a first-class scoundrel," but those who met him pay tribute to his forceful character, striking personality and persuasive eloquence. Determined, astute, champion of Mahsud independence for two decades, he cannot have been a small man who kept his head—both physically and mentally—in the tortuous intrigues that flourished during those bloody years. He is the father of all those *Hajis* and *Faquirs* who have kept popping up on the North-West Frontier ever since, and I have no doubt that the Mulla's methods and experience form the classical curriculum for these latter-day holy men.

When the Durand Line had been fixed the Mulla returned from his spiritual home, Kabul, and wrote to Mr. Bruce asking to be included in the Mahsud settlement. Mr. Bruce sent a verbal reply that any representations he cared to make should be done through the tribal *Maliks*. So the Mulla went to the *Maliks* representing himself as a friend of the Amir; helped them in their rough and ready jurisdiction; gave sanctimonious decisions on

tricky cases of behaviour; raised a bodyguard for his own personal use and very quickly rose to prominence.

During 1897 and 1898 the Mulla steered a tricky course warning government against its forward policy and inciting the tribes to mischief. The political officers had been ordered not to reply to his addresses except through the *Maliks,* so the Mulla began to write direct to the Lieutenant-Governor of the Punjab, who also ignored his advances. On the other hand the Amir sent him encouraging messages from Kabul which helped to maintain the prestige denied him by Delhi. After a full account of his activities had been reported by the Political Agent at Wana in 1899, the Government of India decided to acknowledge his existence and influence. At a *jirga* at Sarwakai the Mahsuds petitioned the Lieutenant-Governor in person to pardon his past acts and to condescend "to treat him with kindness as becomes kings."

The following year was a continuation of raids and offences. Between April and July fifty-three offences by Mahsuds against British subjects were recorded, half of them in British India. In the more serious offences the Mulla was strongly suspected, but no definite proof was forthcoming. He came in himself this year and shyly intimated to a Political Officer that he was prepared to accept an allowance of Rs. 100 a month provided the affair was kept secret "as between kings." To this proposal the Viceroy, Lord Curzon, agreed after considerable hesitation. "Since it is a first-class scoundrel," he wrote, "that we are taking under our wing."

In 1900, the Bruce scheme of Sandemanisation was finally abandoned as unsuitable both to the nature of the country and for the inhabitants. Lord Curzon noted: "The Government of India will only observe that the best method of dealing with the Pathans of Waziristan appears to be still a matter for experiment." And *that,* ladies and gentlemen, after forty years' hard work. Actually the main feature of the Sandeman System—penetration and occupation—had never been applied.

An ultimatum was given to the Mahsuds that unless they paid a fine of one lakh for their sins they would be blockaded. This blockade lasted for over a year, and succeeded only when reinforced by four columns of troops who went into the various valleys and destroyed crops and property to the value of about two-and-a-half lakhs. During this period there was a succession of ugly incidents, raids, ambuscades and murders.

In 1901, the North-West Frontier Province was created, and placed under the charge of a Chief Commissioner.

In 1902, there was an unprovoked attack on a party of the 27th Punjabis, by a gang of Mahsud outlaws living in Birmal, in Afghan territory. The Mulla was suspected and the Mahsuds were ordered to bring him in for trial. He was tried at Sarwakai and acquitted. About this time also the regular enlistment of Mahsuds was extended to two Companies, one in the 124th Baluchistan Infantry and the other in the 130th Baluchis. These were the only two companies in the Indian Army until 1910. About this period also the Waziristan Militias were formed and by their good work in 1903 and 1904 gained not only the confidence of the Government of India but of that more sceptical body, their immediate officers.

Alas for the high hopes cherished. In 1904 Captain Bowring, the Political Agent, was murdered at Sarwakai while asleep by a Mahsud of the South Waziristan Militia; next February Colonel Harman, the Commanding Officer of this Corps, was murdered by another Mahsud sepoy at Wana. This was a more serious conspiracy among the Mahsuds of the Militia who had planned to murder all the British officers at Wana, seize the Fort and hand it and its contents over to the Mulla Powindah, who now styled himself "King of Waziristan."

The Mahsuds were disbanded with commendable celerity by the Political Agent, and in the absence of proof an open breach with the powerful Mulla was avoided by the higher authorities.

In 1905, the behaviour of the main tribe was on the whole good except for various minor raids and incidents committed by *badmashes* under the Mulla's instigation. These culminated in the murder of the Brigade-Major in Bannu who was shot by an ex-militiaman, one of a gang out for revenge for the punishment meted out to Colonel Harman's murderers. Mr. Crump, the Deputy Commissioner, supported by the Chief Commissioner, reported that in his firm opinion the Mulla was at the bottom of the trouble. The Government of India were disinclined to accept this view and rewarded the Mulla with a grant of land in British India, which he accepted, and then went off in fine fettle to tell of his success to his friends in Kabul. It would be of great interest to know the real reasons which prompted the Government of India to make this astonishing gift.

It obviously disturbed the flouted Mr. Crump who was provoked to make out a full dossier of the Mulla's activities. This showed clearly that the Mulla was training a gang of murderers to kill government officers. The Government of India was then persuaded and gave orders to withdraw the grant of land and the Rs. 100 a month allowance.

The Mulla now became the open enemy of Government and from this year—1906—until his death in 1913, kept Waziristan in a continual state of tension and unrest. I will not weary you with a recital of his crimes save to point out that his frequent visits to Kabul were always rewarded with handsome presents of money and ammunition.

I have sketched the Mulla's career at some length because he appears to have set a frontier example which has had a continuous stream of imitators. I doubt if we can learn anything useful from his life except to observe the peculiar gift which Governments of India had of transforming their holy men into holy terrors.

3. *The War and Afterwards.*—It is a common enough belief amongst us that during the War we were lucky in having a peaceful frontier with the exception of the minor expedition to Waziristan in 1917; but the other side of the medal shows us an appalling picture of treachery and crime which was overshadowed naturally enough by the publicity given to the bigger scale productions taking place in other theatres. In 1915-16, one hundred and eighty major offences were committed by the Mahsuds. The Viceroy in a public speech in March 1916 said: "The cup of the Mahsuds' misdeeds was already overflowing and the day of retribution only delayed till our preoccupations elsewhere should be relieved." The tactics of the Mahsuds (improved by their training in the militias and Army) became superb. For instance, the incident of a disguised party of seven, two dressed as girls, capturing the post of Tut Narai in the Tochi and getting away with fifty-nine rifles and eight-thousand rounds of ammunition.

Strong measures had to be taken. An expedition fortified with aeroplanes, Lewis guns and the proclaimed approval of the Amir (who stopped all his allowances to the Mahsuds) entered the country from Jandola and reached Torwam in the Khaisora with little opposition. The Mahsuds submitted and accepted the severe terms imposed. This expedition was probably one of the most well-timed strokes of our frontier history. Its effect reached far beyond the borders of Waziristan and the results lasted until 1919. The Mahsud crime bill was reduced from one hundred and eighty to fourteen.

This lull was, of course, too good to last, and in 1919, when Amanullah preached his *Jihad,* the Wazirs and Mahsuds rose almost as one man, deserting from the militias wholesale—taking with them from Wana and its outposts alone 1,200 modern rifles and three quarters of a million rounds of ammunition. Afghan

propaganda and intrigue was strong enough to make them reject the easy terms imposed upon them when peace was signed between the British and Afghans, and once again an expeditionary force—this time composed entirely of Indian troops—took the field. I need not go into the history of that stirring campaign here. By 1921 the main battles had been fought and G. H. Q. were established at Ladha with long lines of communications to India. The troops sat behind barbed wire and any carelessness or inexperience was severely punished by the watchful tribesmen.

The building of roads then started and Razmak decided upon. The Royal Air Force was introduced as a new instrument to promote the policy of occupation—at last decided upon by the Government. A large garrison was stationed at Razmak and on the lines of communication and by 1929—when the scurvily treated Wana was permanently occupied, for I think the third time—we all felt that at last we had solved the problem of Waziristan. It was at this time I started taking a rather indecent but enjoyable interest in journalism and advocated as a necessary corollary to occupation penetration of the country by friendly troops. I became slightly Sandemanised, but got snubbed for my loose dreaming.

There were a few difficult incidents during these next few years when the tribes showed too ready an instinct to involve themselves in Afghan dynastic affairs but these were smoothed over by firm action. After 1930, however, political developments in India gave a new twist to their meddling instincts and with the rise to power of another holy man called Ipi, coupled with a decision given in a British law court regarding the conversion of a Hindu girl to Muhammadanism, we became involved in operations from 1936 until just recently. These cost two crores and twenty lakhs of rupees, and the results are indiscernible.

* * * *

Conclusions

I have now come to the end of this historical survey. If I had dipped into the history of the Mohmands and Afridis the impression on our minds would have been, I think, much the same. That impression would be a long similar tale of outrages, expeditions, schemes, counter-schemes and road-making since the War. Fundamentally the reason for this disorder is the same—economic. I have not touched either on the Malakand agency which includes Dir, Buner, Swat and Chitral, small Khanates

ruled by personal rulers who have been generally loyal to the British. They also have their special problems akin to those of the more southern territories.

I have not touched either—and do not intend to do so—on the vexed questions of air, political or army control. They are the instruments of policy when a policy has been chosen, and have nothing to do with the subject matter of this lecture.

There are four main policies adumbrated by various schools of thought. Firstly, we have the "Back-to-the-Indus" school which asserts that as the River Indus is the natural and ethnographical boundary, making a sharp division between the races which live on either bank, that this river should be our frontier. I don't think I need waste your time discussing this old school cry as I do not know one single argument in favour of it.

Secondly, there is the school which says, let us retire to the old administered boundary line, put up a line of fortifications to protect the plains-folk, reform the old Frontier Force and use them with the police and militia to punish the tribes who overstep this mark. There is something to be said for this backward policy. It is comfortable, it is lazy and it would not be as expensive as the forward policy. Since the Third Afghan War military operations (exclusive of the cost of maintenance of the normal large garrisons) have cost over twenty-eight crores of rupees. Personally, I have no use for this close-border policy because it is one of despair and leaves the sickness uncured. You might as well abandon a child with a broken leg because you don't know how to mend it. The reason why the forward policy school increased so tremendously since 1914 was the failure of the close border policy to prove its own efficacy. But if such a policy seems expedient now in these troublous years in which we are living, if such a policy gives us, in India, temporary relief from the tension of the war preoccupations we are experiencing, then let us accept it, and leave the aftermath of suffering and debt to our children—like our fellow subjects in England.

Thirdly, there is the present policy of half-forward-betwixt-and-between, called the complacent policy, which appears to me to be a good old British compromise. So far as I can see, this particular policy is cyclical like monsoons, locusts and trade depressions; to these disturbances it reacts automatically and is content to bury, thereafter, its dead, its ruined crops, its trees and its overdrafts.

The steady progress made with roads both in the Mohmand country and in Waziristan has undoubtedly made the punish-

ment of the tribes easier but—so far as I can judge—has done little to civilise them. Indeed the payment made for the roads has only excited their cupidity.

This policy, as I mentioned in several articles in 1929 and 1930, is bound to fail so long as the troops are cooped up in their camps like so many sitting birds. The tribesmen cannot look upon them as anything else except inveterate enemies, and *vice versa*. In the piping days of peace ten years ago we had an opportunity of taking a risk which might have had far reaching results in our relationships. If troops had then been allowed and encouraged to mingle more with the inhabitants, to play games with them, to run *khud* races with them, subsequent history might have read differently. We missed that opportunity and have drifted into a series of periodical expeditions which are expensive and have very little civilising value.

Some of you may remember that some years ago I advocated a twenty-year plan which was, in effect, the gradual absorption of the tribes piecemeal, culminating in their disarmament. As nobody paid the slightest attention to this proposal except the newspapers, it is probably impracticable, but the idea behind it —a definite long-range plan, aiming at the pacification of the frontier and the elevation of its inhabitants—is surely not a bad idea, and better than this slipshod acceptance of circumstances and events which we think we cannot control.

Before any plan can be made to operate, the Durand Line will have to be redrawn. With goodwill on both sides I cannot see why Afghanistan and England should not re-affix this boundary which would lead to greater homogeneity among the affected tribes themselves and make them more susceptible to control by the governments concerned.

Overshadowing the whole problem is the economic plight of the tribes which I believe tends to grow worse yearly. This poverty is largely their own fault as they prefer shooting their neighbours to looking after their crops and flocks. Successive governments have, I know, made extensive economic surveys, examining and promoting irrigation schemes, developing forests and exploring the possibilities of oil and mineral extraction. The results of these surveys have not been promising. Let me tell you a final story.

Last year when I was at home I spent a week-end in Hampshire with a retired Lieutenant-General who was in charge of the escort many years ago when the road up the Gomal to Khajuri Kach was being surveyed. He told me that in one of the gorges

of the Gomal was an engineer's dream of delight for the perfect dam which would irrigate thousands of acres of at present desolate waste land, and give employment and prosperity to the inhabitants. He said that the scheme had been taken up by the Punjab Government but that so far as he knew nothing had been done.

I spent the next night in the house in Sussex of an old friend in the Political Department—Sir William Barton, whose recent book on the Frontier I can commend to you. I told him of this Gomal dam. He remembered the scheme being discussed and examined but, so far as Sir William remembered, it had to be rejected on technical advice as the silting up of the dam would make the distribution of the water uneconomical.

I know nothing about irrigation and its problems but I cannot imagine anything more satisfactory than a series of dams in all the rivers of the North-West Frontier, and all of them silting up. Much better to spend your crore-and-a-half each year in paying the tribes to de-silt these dams and carry the silt to their impoverished holdings than to spend it as we are doing.

That is the end of my lecture. I have only touched the fringes of a fascinating subject; the more I have gone into it the more bogged I became; its problems do not and cannot respond to any quick or easy solution. I have indicated how our great administrators have spent their best years in trying to pacify it. The great Lord Curzon said in 1904 that its solution lay in the military steam-roller being passed over it but that he was not the man to initiate that policy. Times have changed since then and the military steam-roller in Waziristan has only been called out when all other methods have failed.

In conclusion, I would like to condense my criticisms of frontier policies into a parody of Lord Chesterfield's epigram on an even more pressing human association:

In the first place, I consider the results we obtain at present are purely momentary; our position *vis-à-vis* the tribes is ridiculous, and finally the expense is damnable.

* * * *

The Chairman

The latest slogan in connection with the Frontier seems to be that the presence of troops in the country is disturbing to the locals, and that, considering all things, the latter are, and have been, behaving very satisfactorily.

Major Maxwell does not subscribe to this theory, which indeed seems only to have been developed during the last few years, and to have no basis of fact.

He asks with some reason what we were doing between the years 1923 when we occupied Razmak, 1929 when we reoccupied Wana and 1936 when the present trouble broke out. During this period Mahsuds and Wazirs were comparatively the good boys of the frontier. What advantage did we take of their temporary respectability to improve the economic lot of the inhabitants or to encourage them to get on good terms with officers and men? In those days, at any rate, they were not unduly disturbed by the presence of the troops, indeed at times they even seemed reasonably pleased to see officers.

This period of calm was unprecedented in the history of the country and it may be that in our failure to make the most of it, we lost the opportunity of the century.

The combination of a well disposed Waziristan and a politically quiescent India which existed between 1923 and 1930, may not recur for a long time and both conditions must be fulfilled if we are to have peace on the Frontier.

TRUST BEGETS TRUST
THE PROBLEM OF WAZIRISTAN

By B. Bromhead

The object of this essay is to suggest a solution to the problem of policy, and consequent method and means of control in Waziristan.

The first aim of policy in Waziristan must be to ensure the safety of British India. A further aim should be to improve the economic, social and educational status of the tribesmen with a view to enabling them to take a proper part in whatever political future awaits them. Lastly, whatever policy and method of control is suggested, it must, especially in view of the present world situation, make possible a reduction in army expenditure, with a view to its use elsewhere.

The people affected by any policy or its implications are, briefly, the Finance Department, the External Affairs Department with a watching brief for the interests of Afghanistan, the Civil Administration, the Army, Air Forces, and civil armed forces, the inhabitants of the districts bordering Waziristan—and, last but not least, the tribesmen themselves. Let us try to keep this imaginary audience in mind, and sympathise with their feelings, whilst giving to each their due importance.

The Policies Possible.—The main policies possible will be briefly examined as to whether they are practicable or not. These are:

(1) The forward policy, with occupation up to the Durand line.

(2) Disarmament, either in part of, or throughout the whole country.

(3) The backward policy, entailing retirement to the administrative Border.

(4) The present policy.

Mention of the forward policy and disarmament causes a considerable stir amongst our imaginary audience. The tattered group of tribesmen say something extremely rude—backed by the Finance Department. The army point out that a considerable increase instead of reduction in army expenditure would be necessary, although an eventual reduction, after an indefinite period of time should be possible. The External Affairs Department murmurs something about the repercussions which might

arise from control up to the Durand line. Without entering into a controversy on these matters, it is obvious that the present is no time, for military or financial reasons, to embark on the adventure of an extreme forward policy, or of disarmament even though it holds promise of fulfilling our eventual aim.

The backward policy, likewise, arouses comment, though this time an irresponsible element amongst the group of tribesmen and soldiery raise a cheer. The Political authorities, however, realise that little control is possible with such a policy and, in consequence, we should be unable to fulfil our international responsibilities by preventing excursions of our tribesmen such as took place in 1929 and as was attempted by the Lewanai Faqir in 1933 and again by the Shami Pir in 1938. The question, therefore, of the strength and dispositions of the forces necessary to ensure the defence of British India and control raiding along the Administrative Border for a distance from Latambar to the Gomal of some 100 miles will not be entered upon. The considerations mentioned, apart from any hopes of improving the tribesmen's lot, or for notions of prestige, show the policy to be impracticable.

The present policy remains. This is a compromise between the former policies, entailing limited occupation and control. Tribal affairs are managed by *jirgahs* and influenced by the mullahs to a great extent, and by the maliks as far as their personality and leadership permit. The political authorities advise and support the maliks, only interfering as far as they are able, when individual or tribal behaviour is detrimental to British Indian Interests. Control, where possible, is enforced by financial and economic pressure, or more actively, in certain areas, by Scouts, and to a slight degree by *khassadars* and as a last resort, by the army and air force.

The result of this policy is not an unqualified success, though, on the credit side, a certain degree of control is exercised. The debit side shows the cost of this control to be great in lives and money, and that a feeling of hostility pervades the country. Raiders enter and leave the settled districts with comparative ease.

Despite its drawbacks, this policy has not the same degree of impracticability as the previous policies mentioned, and appears to be, in some form or other, the only one possible. The weaknesses and difficulties connected with the present policy and suggestions for overcoming these are given later in the essay.

The Question of Control.—Having criticised the various policies available, it is necessary to talk briefly about control. The present method consists in control by H. E. The Governor of the North-West Frontier Province, through his Political Officers, as long as the situation is normal, while in the event of the situation becoming beyond political control, the army take over until order is restored.

The alternative is unified control under soldier administrators, and its advocates can point to such examples as Lyautey, and to names famous on our own North-West Frontier. They can also point out, that in recent years, Waziristan has on occasions been ruled, at least as successfully, whilst under military control as it has been under the civil.

The facts are that the tribal baby, when too obstreperous, has been passed from the Political to the Military, and eventually returned by the latter after drastic treatment. Neither nurse meets with real success, although the army may return the brat in a sufficiently exhausted condition to allow the political to hold it in comparative quiescence until its undisciplined energies boil up into a further paroxysm. The parents appear to have small interest in its future. Any real nurse will tell you that this is no way to bring up an infant—but it is not fair to blame either the army or the civil. One psychological drawback to army control is apparent, and that is, the tribal baby dislikes being held by the army, more than by the civil—and here we will leave this nursery metaphor.

A further drawback to unified control is that the working of both the army and the civil machines has become so complicated as to be difficult of management by a single man. Lastly, under present conditions of service, the soldier has not the same opportunities of becoming expert in tribal affairs and in civil administration.

In short, taking all the above considerations together, unification of control appears to have too many difficulties to be efficient. The present method, provided good co-operation exists—and this is generally the case—has, in the past, proved adequate —and there is no reason to suppose that it will not be so in the future.

A Dissertation.—As a dissertation from the main theme of the essay, it is necessary to explain, for the benefit of those who may not know, what is meant by scouts and *khassadars,* before going further.

SCOUTS.—There are two Corps of Scouts in Waziristan. These are the Tochi Scouts and South Waziristan Scouts, operating in north and south Waziristan respectively. The Scouts, as part of the Civil Armed Forces, are an irregular force of armed police, trained and organised on semi-military lines. Their duties are normally police work in Tribal Territory. The strength of each of these two corps is approximately three thousand men. They are distributed in fortified posts as shown in the map. These posts vary in strength, according to necessity, from three to four platoons in the smaller posts, to possibly eight platoons or more in the large posts.

The composition is entirely of Pathans, one-third of whom are trans-border tribesmen, but these, with the exception of about one hundred men in each corps, do not come from the tribes of Waziristan. They are armed chiefly with the rifle, though some machine-guns are kept for the defence of posts. Owing to their composition and light armament, and also to the fact that when operating no animal transport accompanies them, they are extremely quick across the hills and are able to compete on more than equal terms with the tribesmen, sharing with them the twin weapons—surprise and speed—but backed by superior training and discipline.

Their normal police duties consist of:

(*a*) *Gashting.*—This may be interpreted as patrolling. A *gasht* moves on the principle of a fighting patrol, always deployed to fight. The strength normaliy varies from eighty to two hundred rifles, or more, if the area or task is dangerous. *Gashts* move out for various purposes, such as routine patrolling to become acquainted with the country, the protection of political officers visiting places in their agencies, moral support to *khassadars* on road protection or to friendly elements in difficult areas, or again to search out and engage hostile gangs when information is given of them.

(*b*) *Arrests and round-ups.*—This may be to arrest individual outlaws, or whole gangs, or perhaps to surround and obtain hostages and rifles from a tribe, or to distrain on their livestock. The village or area is normally surrounded at night and searched at dawn. Such operations are apt to be met with opposition.

(*c*) *Chapaos or Ambushes.*—These are to waylay raiders or hostile parties, moving by probable or known routes.

Apart from the above "peace time" duties, scouts act in co-operation with Regular Army columns in war. Their speed enables them to be used in the same role as mounted troops covering an advance in open country, or as a moving flank guard. Their light armament prevents their taking on superior opposition when unsupported, and makes it necessary, in such circumstances, for them to move within range of artillery support. They have shown during recent operations that their fighting value and *esprit de corps* are great.

THE KHASSADARS.—These are tribal police, recruited from the tribesmen of the country in which they work. They provide their own rifles, are not trained, and do not wear any uniform other than an armband. Their recruitment is a tribal affair. Promotions are political and not by merit. They occupy small posts, chiefly along the routes to be protected by them. These posts are often ill sited and badly constructed and, in general, not strong enough for serious defence. Khassadars' duties consist of acting as escorts where wanted, and protecting the roads in their area. Their protective value is more political than tactical, and varies in efficiency in accordance with the political atmosphere, and other factors such as the degree of support given to them. For the above reasons they are not altogether reliable, and are looked upon with suspicion by regular troops and by Scouts. They have, however, on occasion offered active resistance to hostiles, and individuals amongst them have done good service.

This finishes the dissertation, and the difficulties and weaknesses to be contended with, will next be examined, followed by a consideration of assets which may help in tackling the problem.

WEAKNESSES AND DIFFICULTIES TO BE OVERCOME

(*a*) *Weaknesses due to policy*—

(*i*) Lack of an aim other than to establish a degree of control, and also lack of any steadfastness of purpose towards that aim.

(*ii*) Absence of sufficient outlet for the spasmodic energies of the tribesmen.

(*iii*) The continuance of payments to individuals and tribes, when these have ceased to assist Government actively, and in general the demoralising effect of undeserved payments.

(*iv*) The present spirit of unrest and bitterness, due in part to the regard of Government, as so largely represented by a "foreign" army, as the "enemy."

(*b*) *Other Weaknesses*—

(*i*) The fact that, for some, war has become a racket: the more troops there are, the more contracts and transport are necessary.

(*ii*) A feeling that it pays to be hostile, and that friendship brings insufficient reward.

(*c*) *Difficulties affecting policy*—

(*i*) The difficulty of obtaining money for any useful aim such as education, social improvements, agriculture, irrigation, etc.

(*ii*) The childish mentality of the tribesmen, their idleness, lack of education and ignorance, and their undisciplined energies, so easily used by unscrupulous persons; all of which make the grown-up generations difficult to reform.

(*iii*) The general barrenness and difficult nature of the land, tending to poverty and lawlessness.

(*iv*) The fact that there is no "wall" behind the tribal zone but a neighbouring country, with but loose control over its border tribes.

(*v*) The influence of politics from the administered territory, sometimes leading to unrest.

(*vi*) The tribal custom of "*melmasti*," making it difficult for a friendly tribe to avoid giving shelter to outlaws and other tribes under blockade.

(*d*) *Difficulties affecting political control*—

(*i*) The presence of large areas such as the Ahmedzai Salient, the Lower Shaktu and the Bhittani country adjoining the settled district, in which active political control by Scouts does not exist. It is only necessary to look at the map to see the tremendous length of border touching administered territory which is at present unpoliced from inside tribal territory.

(*ii*) The frequent inability, owing to lack of control in the area to make a prompt arrest of ringleaders; and the consequent tendency for punishment to fall on their less guilty seconds.

(*iii*) The fact that the majority of raiders return unscathed, pointing to the difficulty of stopping raids from administered territory, and the need for control over the areas from inside.

(*iv*) The weakness of the *khassadar* system, especially when not in range of support.

(*v*) The lack of touch between tribesmen and government which is bound to result when junior political personnel such as muharrirs in isolated posts are not of the first class.

(*vi*) The increasing improvement in tribal armament.

(*vii*) The restrictions on the use of the air force rendered necessary by humanitarian considerations.

(*e*) *Difficulties and weaknesses concerning military and scouts dispositions and operations*—

(*i*) The weaknesses in our lines of communication, especially that to Wana. The presence of "weak spots" sometimes insufficiently guarded, such as the Sangar Sar and Tabai Narai area *en route* to Spinwam, which invite hostile action and consequent unrest. In connection with this, even when a route is "guaranteed" by the political, a commander cannot take undue risks, or forget he is responsible for his own protection.

(*ii*) The temptation to hostile gangs of weak road protection gashts, and Scouts gashts, working too far from support.

(*iii*) The difficulty of obtaining timely information and of maintaining secrecy.

(*iv*) The lack of good military objectives.

(*v*) The use of military columns in sensitive areas without any more definite objective than to exert economic pressure, or to show the flag. The presence of troops, more often than not of a different religion and race to tribesmen, whose sense of freedom and privacy is easily offended, is a tremendous irritant. The troops naturally regard all tribesmen as "enemy" and the feeling is reciprocated. It is hard not to sympathise with both sides. The tribesmen do not, to the same extent, object to the presence of Scouts when employed on such duties, for these are men of their own religion and race; though in war it is not true "that tribesmen never shoot at Scouts." By sensitive areas I mean areas such as the Shaktu. I do not mean that the Army should be confined to their posts, but that they should, unless necessary, avoid areas unused to troops.

THE ASSETS IN FAVOUR OF POLICY AND CONTROL

(*a*) *Assets in favour of Policy.*—These are somewhat few.

(*i*) The respect of the tribesmen for firm and just treatment and resolute authority, and their respect for the fighting qualities of the Services, however much they may smile at their slowness of method or dislike their presence.

(*ii*) In the majority, a ready response to friendship and a shrewd common-sense, combined with sense of humour and courage.

(*iii*) A country which in the past has been cultivated to a vastly greater extent than at present.

(*iv*) Lastly, but far the most important, a young generation of as good material as may be found anywhere.

(*b*) *Assets in favour of Military and Political control*—

(*i*) Roads and posts, and the extra mobility given to columns by motor transport and by ration dumps maintained in posts.

(*ii*) The ability of the army to fight its way where it wishes and the general high state of efficiency of the army, air forces and Scouts.

(*iii*) The great effect of new weapons, such as tanks, out of all proportion to their numbers.

(*iv*) The very great effect of the air force when in support of ground troops in action, and their use as troop carriers and supply droppers.

(*v*) The occasional usefulness of the *Khassadar* when within supporting range of regular troops.

(*vi*) The quietening effect of Razmak on the Mahsud situation.

THE SUGGESTED AIM OF POLICY

The weaknesses and difficulties confronting the solution of the problem have now been seen, as also the assets in hand. In the making of any suggestions these must be remembered. Let us also remember the imaginary audience, whom we have not mentioned for some time, and keep their feelings in mind.

The proposals are as follows:

The policy must aim at ensuring the safety of British India by means of full political control inside the area bounded by the road from Thal in Khurram to Mir Ali, from thence to Datta Khel in the Tochi; from there, via a direct line to Razmak, and so by the road to Wana; and thence straight South to Gul Kach; then Eastwards from Gul Kach taking in the Gomal Valley and the

Zilli Khel grazing grounds south of the Gomal to Kashmir Kar; and lastly the Sherrani country. The country within reasonable *gashting* distance of posts on the outer arc, outside this enclosed area, must also be included. Scouts must be able to *gasht* anywhere within this area, and carry out arrests.

When control has been established in an area, the secondary aim should be, to provide education for the younger generation, and employment primarily in the Services; and in the event of a major war, employment for the older generation also, in corps of irregular troops, at a distance from their homes, such as in Burma.

Further, the question of agriculture and irrigation must be tackled gradually, and the conditions of service in tribal police forces such as *khassadars* improved, both to increase their efficiency, and make the services rendered by such bodies more commensurable with the money spent on them.

THE METHOD OF ACCOMPLISHING THE AIM

The method of carrying out the above aim falls into two main stages:

The first stage consists in—

(*a*) Increasing the strengths, and numbers of posts, held by the Tochi Scouts and South Waziristan Scouts, to police areas inside the proposed "controlled zone" which at present are not policed.

(*b*) The raising of a Bhittani Militia for the policing of their own country.

(*c*) Reorganisation of the *khassadars,* in areas where control and support are sufficient, into a more efficient Levy Corps. The retention of the word *khassadar* might not give the new corps a fair start.

Should any member of the Finance Department or those concerned with army recruitment read these words, I would ask them to look at the suggested means for financing this venture and for finding the increased strengths necessary, before condemning the scheme.

During the first stage, the Army would have to remain at approximately its present strength, and in the event of major opposition from hostiles and other interested persons, who may well object to a stricter control over their activities, the army might have to assume complete control until the stage was completed.

The second stage is divided into two sections, that is, firstly, in the reduction of army strength to the minimum necessary for possible punitive operations, and the maintenance of a secure

line of communication; and secondly, in the opening of schools, finding of employment, and in measures for the betterment of irrigation and agriculture, for tribesmen in the controlled areas.

Brief details of the two stages are as follows:

First stage—The proposals mentioned above would be carried out as follows:

(*a*) By the disbandment of the present Frontier Constabulary as such, and the transfer of their strength to the Scouts and the Bhittani Militia, in proportion to the strength now maintained by them, along the borders of each Corps area. The retention of the Frontier Constabulary along an Administered Border lying against tribal territory which is properly controlled from inside, is redundant. This is not said to disparage the Frontier Constabulary, whose fine record speaks for itself. Sentiment must not, however, interfere with efficiency, a lesson which the army is learning.

Present methods for the control of raiding might be best described by the adage of shutting the stable door . . . and the contention of the writer is that this particular "stable door" can best be kept shut by control from inside. The length of border to be watched and the small numbers to watch it, the numerous routes in the plains and foothills available to raiders, and the lack of information through the fear or sympathy of the inhabitants in the settled districts, all weigh too heavily against forces operating from the present Frontier Constabulary posts at their present strength.

(*b*) By the formation of a "Reserve Wing" in each Corps of Scouts from the strength transferred from the disbanded Frontier Constabulary, and further, if necessary, from old disbanded soldiers. The function of the Reserve Wing would be to act as immobile post defence garrisons, to be distributed to all posts, thus entirely freeing the present "Active" Wings for *gashting*. The Reserve Wing being for post defence, for which the chief requirement is fire power, it need not, if armed with light automatics, be numerically strong. A strength of 400 men per corps should be sufficient to provide twenty platoons armed with four light automatics in each platoon.

The formation of "Reserve" Wings would require very little organisation and training if composed of Frontier Constabulary and old soldiers. They would eventually be composed entirely of old soldiers and the work being comparatively sedentary, should attract that class.

Posts might be classified as follows:

(*i*) *Normal Posts.*—Normally these posts would always contain a *gashting* garrison from an "Active" Wing, and, in addition a "Reserve" Wing garrison sufficient to hold the post in the absence of the *gashting* garrison.

(*ii*) *Seasonal Posts.*—These would be posts which the *gashting* garrison would occupy in accordance with the season of the year and movements of the tribes. A "Reserve" Wing garrison would always be present for post defence. For instance, it might not be considered necessary to have a *gashting* garrison in Chagmalai, at the junction of the Shaur and Mastang Nullahs, during the heat of summer when the area was clear of tribesmen. In winter, when the Jalal Khel Mahsuds move to their winter grazing near Chagmalai, a *gashting* garrison might be necessary.

(*iii*) *Reserve Posts.*—These would be posts, or piquets, from which *gashts* did not normally operate, though they might be used as a temporary base by *gashts.* Such posts would only contain a "Reserve Garrison." Instances might be, the Shahur Tangi and Iblanke Narai piquets or a proposed "non-*gashting*" post at Sangar Sar and Tabai Narai, for the defence of the Spinwam Road and for the support of "Levy Posts" in that area.

(*c*) *The formation of a Bhittani Militia.*—The work of this Corps would be the policing of its own area, on the lines of the Kurram Militia, with this difference, that it would also have to prevent raiding from Mahsud country, as well as its own. The financing of the corps would be found, as far as possible, from the amount now spent on the Frontier Constabulary at Tank and along the Bhittani border, and by the gradual elimination of any Bhittani *khassadars.* The nucleus of the corps would be formed by the transferring of the two Bhittani platoons with the South Waziristan Scouts—and from any now serving with the Frontier Constabulary. The recruitment of the corps would have to be chiefly Bhittani, with a proportion of Marwats.

The minimum posts necessary would be a headquarters at Tank, to be in close liaison with the Assistant Commissioner.

Tank, and the Political Agent, South Waziristan, and to take advantage of the present Frontier Constabulary post and lines; with large posts at Jandola, which, being in Bhittani country, would have to be taken over from the South Waziristan Scouts, and at Kot. Other posts necessary would be at Girni, Pir Tangi and as close as water and other considerations permit, to the Sammal Narai. The latter post would be of great importance to the South Waziristan Scouts, giving them a base for work in the Jalal Khel summer area and the Sheranna and Karesti Algads. Motor tracks would have to be constructed eventually from Jandola to Kot, *via* Pir Tangi, and from Sammal Narai to Mullazai, *via* Kot.

Before leaving the question of a Bhittani Militia, there are two points to stress. Firstly, although the formation of such a corps would probably meet with opposition from certain elements, there can be no question but that it would be eventually of tremendous benefit to the Ghittani tribe, providing decent work for their youngsters, and making possible social improvements. Further, the passage of Mahsud raiding gangs through, or the organisation of raiding gangs from, Bhittani country, could be effectively controlled along its lengthy border. Secondly, false pictures may have been drawn of the fighting qualities of the Bhittanis during recent operations. The writer does not believe the heart of the tribe was really in the hostilities. Bhittanis have done good work in the South Waziristan Scouts, where their fighting qualities have been tested and proved to be excellent.

(*d*) The extra Tochi Scouts posts suggested are:

(1) "Seasonal Posts" at the Lower Shaktu and the Kam Sham, with a *gashting* garrison of normally six platoons in the area, to police the Shaktu, and co-operate with a South Waziristan Scouts post near Sammal Narai.

(2) A "Reserve Post" at Sangar Sar, with a piquet on Tabai Narai to support Levies in the area, to keep the Spinwam road open, and to act as a base for *gashts* co-operating with the Spinwam garrison.

(3) A "Reserve Post" at Boya and at Karkamar, with a *gashting* post at Tut Narai: these posts to keep the Datta Khel road open and to support Upper Daur, Manzar Khel, and Khiddar Khel Levies. A Mohmit Khel levy post on the Lowargai Narai.

The Ahmedzai salient should not require a separate post if the line from Mir Ali, Spinwam, Thal in Kurram is sufficiently

policed; but in the event of this area being used as a base by hostiles, a "punitive" Scouts post must be temporarily established, at the expense of the Ahmedzai Wazirs, or the area disarmed. Motor tracks in the Tochi Scouts area would be necessary from Karkanwam to the Lower Shaktu Post, and improvement to the Degan to Datta Khel track, via Tut Narai.

(*e*) The additional South Waziristan Scouts posts suggested are as follows:

(*i*) A post at Wana, which would enable the Wana Brigade to be used elsewhere.

(*ii*) A post either at Barwand Baghza, or at some central place between Sorrarogha and Sarwakai, where a good landing ground was possible.

(*iii*) A "Seasonal Post" near the Sammal Narai, when the Jalal Khel were in their summer grazing grounds.

(*iv*) The moving of the headquarters of the South Waziristan Scouts to Wana or Barwand in order to be at a place from where the air force could operate, and to leave Jandola for the Bhittani Militia.

(*f*) The policing of the Zilli Khel grazing grounds south of the Gomal, and of the Sherrani country, need reference. The former area, being Wazir territory, would continue to be policed by the South Waziristan Scouts but might require a "seasonal post" in the Gomal, about Nili Kach, if the Frontier Constabulary posts at Murtaza and at Manjhi were withdrawn. In any case, police would be required at these posts to collect Powindah rifles. The Sherrani country, looking at it from the map, appears to be best left as it is under separate Frontier Constabulary, or taken over by the Zhob Militia, provided political difficulties could be overcome, and a road made from Fort Sandeman to Daraban, via Moghal Kot and Drazinda.

(*g*) The present *khassadars* in all "controlled areas" must be disbanded, and a Levy Corps, commanded by a British Officer, formed in their place, to help the Assistant Political Officer. Recruitment for the Levies must be in the hands of the Political, and not be a family affair as at present. Suitable terms of enlistment should be agreed to and be binding. Some form of uniform must be provided. Posts should be well made, tactically sited and capable of defence, and be within reasonable support of a military or scouts post.

(*h*) When a "Levy Company" becomes sufficiently efficient, and the tribe or sub-section concerned sufficiently under control, then certain Scouts' posts might be handed over, to free the Scouts for areas not yet sufficiently policed—for example, "Splitoi" Post, might be handed over, say, to the Shahur, Shaman Khel, and the garrison released for a new post elsewhere, possibly in the Upper Shaktu. Such a process would have to be gradual. If Levies organised on such lines are not politically practicable, then the present *khassadars* should, if possible, be made to feel their obligations to a greater extent, and be given better means to carry them out. Such improvements as the provision of uniform, the construction of more defensible posts and a greater degree of support, might increase their morale.

(*i*) The fighting power of the Scouts must be increased by the provision of light tanks and light armoured cars to replace mounted infantry, by a sufficiency of post guns or mortars, and by the provision of light automatics for piquet and post garrisons. If disarmament is not possible, then tribal armament must be met by superior armament.

(*j*) A liaison officer, who would be in close touch with the district police and pass on information of any raid that did happen to take place, should be attached to the headquarters of each civil district. Wireless telephony with all posts is necessary so that the voice of the liaison officer, "calling all posts," might give immediate warning. The organisation of defence against raids in the civil districts should include "radio" vans in the important police posts, so that armed police, moving in motor transport to the support of village *chigas*, would be able to pass on first-hand information of the movement of gangs.

This completes the suggestions for the first stage.

Second Stage.—The reduction of the Regular Army garrison would be carried out as soon as the first stage was sufficiently advanced to permit a reduction. It is suggested the following troops could be reduced:

(*a*) The Wana Brigade.

(*b*) The battalion at Manzai.

Peace Distribution and Tasks.—The following are the troops which it is suggested should be retained:

(*a*) Razmak Brigade, at its present strength.

(*b*) A Lines of Communication Brigade for the Bannu-Razmak road and the garrison at Bannu.

(*c*) A mechanised cavalry unit, stationed at Dera Ismail Khan or Bannu, with detachments at Mir Ali and Razmak.

This suggestion is open to criticism in that it leaves Scouts Posts far from support, and leaves the Gomal route unguarded. Further, only one striking force is available. The risk is admitted, but as far as Scouts are concerned, they can, if necessary, defend themselves against tribal attacks.

As regards the military problem, if the risk is not considered permissible, and if two striking forces are considered necessary, then the following alternative suggestions are made:

(*a*) The Razmak garrison be increased by two battalions, a sufficient strength to provide two striking forces. The extra garrison need not be in Razmak, but based on the Razmak line of communication. The disadvantage is that no regular troops are in South Waziristan, or near the Gomal. The advantage is that there is only one line of communication to guard.

(*b*) The Wana garrison be moved back to Barwand, or some central position in South Waziristan, the necessary strength being found by the Manzai battalion, released by the forming of a Bhittani Militia, and by one battalion from the present Razmak garrison, with two additional battalions. The advantages are a shorter and less vulnerable line of Communication and a more central position.

Both the above suggestions allow for a reduction on the present strength in Waziristan.

The defence of the lines of communication at this stage would be the responsibility of the "Levy Corps" supported by occasional armoured car patrols. It is suggested that the Lines of Communication Brigade be kept concentrated at Bannu and Mir Ali, for ease of maintenance and administration during normal peace periods. Movement of ammunition and arms and small armed parties between Mir Ali and Razmak would only be allowed on notified days, at irregular intervals. Protection would be by close escort of armoured cars and "Levy" protection, supported by Scouts' *gashts*.

War.—

(*a*) In the event of serious disturbances necessitating the taking over of the lines of communication from the "Levy Corps," it is suggested that the Lines of Communication Brigade occupy battalion posts at places such as Gardai, Damdil and Thal in Tochi, with intervening permanent piquets over danger spots between these posts. Whilst not advocating a static defence of the road, it is necessary for road protection *gashts* to be safeguarded from ambush at such places, and also to have pivots from which they can manœuvre if need be. Permanent piquets, apart from their value of guarding against surprise, would also give moral support to "Levy Corps" posts in their vicinity.

(*b*) The Army would take over entire control if the Civil Armed Forces could not deal with the situation. Peace time contracts would immediately cease, and every endeavour be made to prevent hostilities becoming a source of profit to the tribes. In this connection it might be worth while holding an enquiry as to the source of such possible profits, under the heading of supplies, transport, etc.

The Air Force—

(*a*) PEACE.—It would be ideal if a flight of aircraft could be based on the headquarters of both the South Waziristan Scouts and Tochi Scouts, and not only the latter as at present. The advantages are close liaison, and knowledge of the local country and its problems. The difficulties are maintenance and administration. If the above is not possible, it is suggested that the air force at Miranshah should be increased, and a flight attached for short periods to the South Waziristan Scouts. In peace, the main active work of the air force will be co-operation with Scouts *gashts*.

(*b*) WAR.—The present restrictions on the use of the air force largely counteract the great power of this weapon. The problems involved are somewhat delicate, but I would suggest the following:

The present method of "proscribing" an area, in an attempt to eject undesirables such as Ipi, or of hostile forces, has this main disadvantage: that the time lag, due to having to give separate warning to each area involved, allows the principal offenders to escape.

An area should be proscribed by a "warning order" that if authentic information is received, the area will be punished without further warning. Punishment should take the form of tear gas spray on the area concerned, administered by day or night—thus causing no damage to property, and leaving no "dud" bombs for subsequent mischief.

Caves will not prove such effective anti-air shelters as at present. The inconvenience caused will affect everybody and maim none, and should be effective. Tactical use of tear gas is impracticable as it would hamper operations if used in the vicinity of troops, but should an effective persistent tear gas be obtainable, its punitive use, as above suggested, should be considerable. Warning should be given by means, if possible, of aerial loud speakers.

Employment and Social Improvement—

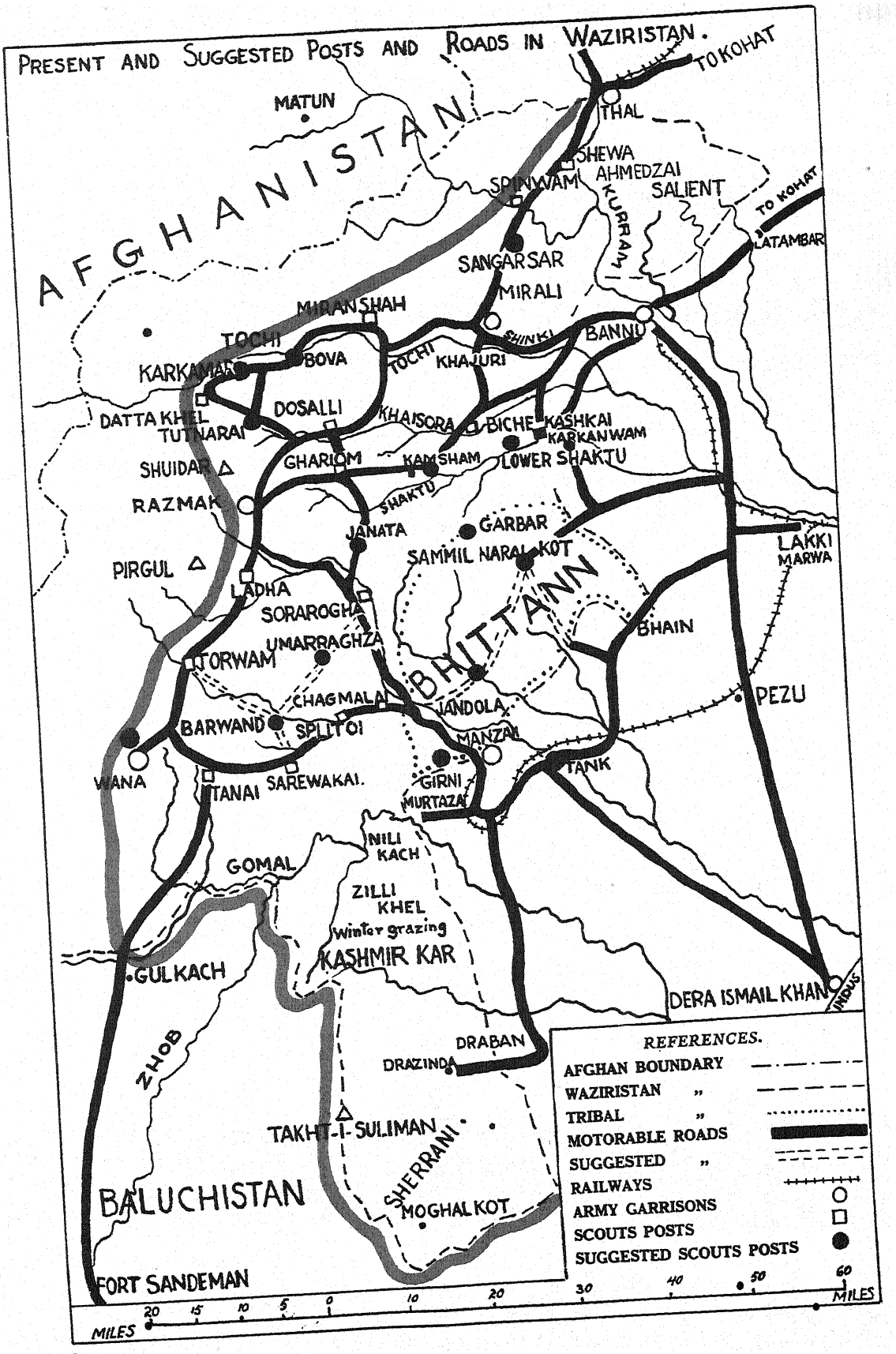
(*a*) The provision of schools raises problems. Firstly, schools must be free. Secondly, they should be run with a view to character building, as well as to education, otherwise the good material will be spoilt. (The writer is thinking of the type of school run by Canon Tyndale-Biscoe in Kashmir.) A central college would be needed near Razmak, providing education up to the standard of F. A., whilst engineering and agriculture should also be taught. The dignity of labour would be a subject that required special effort. No real progress towards pacifying this area, which is not based on the weaning of the younger generation from the bad habits of the elder, can be made.

(*b*) *Agriculture and Irrigation*—

(*i*) The problem of agriculture cannot be fully tackled until a younger generation grows up, who are prepared to work, and who have the necessary education. A start can be made by the encouragement of fruit and vegetable gardens at Levy posts, and by experimental "farms" under Levy protection.

(*ii*) There are many open plains, or "raghzas," on which, if sufficient water were made available, crops could be grown.

(*c*) Bound up with education is the problem of subsequent employment. The country will never be self-supporting and so employment must be found outside. The obvious source of employment for such material is in the fighting services. The question must be boldly taken up, and where control exists and suitable material is available, enlistment must be opened. It is


PRESENT AND SUGGESTED POSTS AND ROADS IN WAZIRISTAN.
AFGHANISTAN
TOKOHAT
MATUN
THAL
SHEWA
AHMEDZAI
SPINWAM
SALIENT
KURRAM
TO KOHAT
LATAMBAR
SANGARSAR
MIRALI
MIRANSHAH
SHINKI
BANNU
TOCHI
BOVA
KHAJURI
KARKAMAR
DOSALLI
DATTA KHEL
TUTNARAI
KHAISORA
BICHE
KASHKAI
KARKANWAM
SHUIDAR
GHARIOM
KAMSHAM
LOWER SHAKTU
SHAKTU
RAZMAK
JANATA
GARBAR
SAMMIL NARAI KOT
LAKKI
MARWA
PIRGUL
LADHA
SORAROGHA
BHAIN
UMARRAGHZA
TORWAM
BHITTANN
CHAGMALAI
JANDOLA
PEZU
BARWAND
SPIITOI
MANZAI
WANA
TANAI
SAREWAKAI.
GIRNI
TANK
MURTAZA
NILI
KACH
GOMAL
ZILLI
KHEL
Winter grazing
KASHMIR KAR
GULKACH
DERA ISMAIL KHAN
INDUS
DRABAN
DRAZINDA
ZHOB
TAKHT-I-SULIMAN
SHERRANI
BALUCHISTAN
MOGHALKOT
FORT SANDEMAN
REFERENCES.
AFGHAN BOUNDARY
WAZIRISTAN "
TRIBAL "
MOTORABLE ROADS
SUGGESTED "
RAILWAYS
ARMY GARRISONS
SCOUTS POSTS
SUGGESTED SCOUTS POSTS
MILES
20 15 10 5 0 10 20 30 40 50 60
MILES

better to make of this area a potential source of recruits rather than a potential hostile reserve.

Conclusion.—This ends the suggested solution. The question remains: Will it work? If it does work, army expenditure will have been reduced. The increase in the Civil Armed Forces will not be at the expense of any army recruiting area, but rather the potential recruiting area will have been enlarged.

The expenses of the scheme will be largely met from the money saved by the reduction of the Frontier Constabulary. Further, should the increased force in the hands of the Political Authorities appreciably reduce the money spent on military operations in this area, then from a financial point of view the scheme will pay. There is a risk, but is it not better to take it rather than face the certainty of further operations under the present conditions?

What of the future? Certain areas such as the Upper Shaktu will not at first be under active political control until it is possible to relieve Scouts from pacified and—possibly—partially "disarmed" zones, policed by Levies.

Disarmament, even if not an immediate aim, must always be kept in mind as the ideal and ultimate solution. If it is possible very gradually to further this aim in any area, it should be done. Sufficient rifles to afford self-protection would have to be left in the area concerned, in the hands of Levies and responsible men. Possibly, the issue of government rifles and ammunition to responsible persons and to Levies (such arms to have licenses) and, in addition, the giving of financial compensation for arms handed in, might be an inducement.

In course of time, a central and partially disarmed zone might thus be formed inside the outer arc of the line marked red in the map, containing the "controlled tribes." The defence of this "controlled" area would be the duty of the Regular and Scouts posts, which, with the exception of the posts required for the protection of the lines of communication, would eventually all have moved forward to the outer arc, leaving the centre under Levy control.

The methods of Sandeman, perhaps the greatest frontier administrator, were based on the principles of supporting the maliks, and that trust begets trust. In this essay, I have endeavoured to suggest a method of control which would give the Political the means to support the maliks, and I have attempted to suggest means which will eventually create an atmosphere in which trust can be reborn.

KALUNGA, 1814

By Major J. G. O. Whitehead, R.E.

To many who have served in India and who have known Dehra Dun, the little hill of Kalunga and the twin obelisks of the Gillespie-Gurkha Memorial must be a familiar recollection. The story of its capture, with the loss of Rollo Gillespie's life, has been told by Fortescue in his history of the British Army, and by Wakeham in his memoir of that very gallant soldier; yet there are local tales to be added to it, which fill in the detail of an action in which our forces met the Gurkhas and found them to be of that stubborn, hard-fighting nature that has proved itself in so many an engagement since. It is attractive to picture the Doon of those days, not the valley of cornfields and tea-gardens that now opens before one but a thickly wooded hollow, with here and there a clearing and a sparsely populated hamlet, and with a more luxuriant undergrowth, before forest cutting had dried some of the springs. The lip of this hollow, the Siwaliks, were then the frontier hills of the North-West Province; they represented to the plainsman the edge of the inhospitable Himalayas, the home of Siwa the Destroyer, and thereby bore his name. Against them stood Saharanpur Fort, an outpost of the newly established British rule. For the British were still a strange sight in this part of India, and life was refreshingly simple; it was at an Agra fair that an old woman was heard to say that she had seen a Sahib with a fairy by his side, covered with feathers of the most beautiful hues, whose face was as white as milk, and that the Sahib had had to keep his hand on her shoulders to prevent her from flying away. Times have now changed, and fashion no longer allows peacock-feathered tippets, but the ways of a maid with a man have not altered, and fairies still need to be held.

Only a few years previously the British and the Gurkhas had been extending their rule side by side, the one over the plains, the other across the hills; so it was that within a few days of each other, in October 1803, the British entered Saharanpur and the Gurkhas Dehra Dun. The Gurkhas occupied the hill of Kalunga, where stood the remains of a centuries-old fort built by a Rajput chief named Sagar; the site was famed for the good omen that had led him to choose it, for on it a tiger and a mountain sheep had fought, and the sheep had won. From that point of vantage the Gurkhas used to plunder the countryside. The

memory of their eleven years' occupation is still vivid in men's minds. Human beings were sold as slaves at from ten to a hundred-and-fifty rupees apiece, yet a camel fetched seventy-five, and a horse three hundred; villages would be blackmailed for milk in the evening time, and in the morning the robbers would return to demand the curds that should have been made from it; the old and infirm, generally women, would be seized and wrapped up in grass and burnt, while the onlookers would shout in delight "Now dance to the Devi of Nepal." As a result, for the last two years before 1814, the people did no husbandry, but lived in the forests on such jungle fruit and roots as they could gather. One of the men who lived at that time was Kalli Ram, a big and powerful man, who on one occasion had seized a chital stag by the horns and felled it with his fist. On another occasion he had met a tiger in the way, and had said to it: "We are both males of our kind; myself I am not going to turn, so come on!" Then, when the tiger had sprung at him, he had caught it by its forepaw and killed it with his billhook. But, as his grandson observed, "In those days the men were like that." The same Kalli Ram had happened to be catching fish in the Song river one morning, when a Gurkha, who passed by on his way to Dehra Dun, forced him to carry his bedding roll; as they went through the forest an idea came to him. Pointing towards an imaginary rustle in the undergrowth he said: "See, there's a peacock, shoot it!" "How can I, my gun's empty, I have no powder or shot," answered the Gurkha; on which Kalli Ram, having learned that his arms were not to be feared, flung down the bedding, thrashed him, and then made off.

Such was existence in the Doon; and eventually the villagers appealed to the British for help, saying they would gladly come under their rule. This coincided with the need being felt all the way down the border for operations to put a stop to the raiding of the plains. Affairs between the British and the Gurkhas came to a head in 1814, and an expedition was set on foot: four separate forces were formed, that were to enter Gurkha territory simultaneously; the one with which this story is concerned was assembled at Meerut, and was given the task of clearing the Doon, of destroying the half-built fort of Kalunga, and then of joining with the western column that was to clear Sirmoor. Little difficulty was anticipated. Gillespie, who had seen as much of fighting as any soldier of his time, sent his troops into the Doon in two detachments, one over the Timli Pass with orders to seize the Jumna crossings,

and one over the Mohand Pass to clear Dehra and to capture Kalunga; he himself remained with the Reserve at Saharanpur. The Mohand Column was commanded by Mawbey, Colonel of the 53rd; they crossed the Siwaliks, not quite by the route that the present road follows, but by the nullahs slightly to the east, and were guided by the zemindars of Kheri village. They reached Dehra on the 22nd October; Mawbey promptly sent a summons to Balbahadur Singh, the Gurkha leader, to surrender Kalunga Fort; the summons reached him late at night, and he answered it: "It is not my habit to carry on correspondence at so late an hour, but I shall, however, soon be paying the writer a visit in his camp." Judging from local stories, Mawbey must have gone straight at the hill the next day; for there is a tale of a first attack up the western face at Shiamiwala, the former dwelling place of a faquir, near-by where is now a forest ranger's tomb. This attack it is said failed because of the high angle at which the guns and men had to fire; shots that missed the parapet went harmlessly overhead, doing no damage behind. The few villagers that could be persuaded to help carried loads for the troops, and afterwards dug a large common grave in which all who fell were buried. Mawbey then acted very vigorously; for, that same night, he marched his men round by a detour onto the northern face, to where he could bring his guns into action. A rough road was made during the night up to a neck of ground called Jagat Khana; and so scarce was labour, it is said, that the villagers were paid a rupee for every basket load of earth carried. Whatever it was, it gives a picture of a determined effort to get the guns up at all costs. The endeavour was successful; by morning the elephants had dragged the guns into position, near a mango tree in front of Gujarmi village, and the troops were assembled on the little plateau above. Then it must have been that the fault in the plan came to light: the fort was out of range, over a mile distant; so Mawbey was obliged to return to his camp and report to Gillespie that the *coup de main* had failed—"for want of correct information."

It was now the 24th October; Gillespie had strict orders to clear the Doon by the 1st November, when he was to co-operate against Sirmoor, so the utmost energy was needed unless he were to be late—an intolerable thought to a man like Gillespie. On the next day he reached Dehra, and by the 28th he had brought up the detachment from the Jumna; he saw the task in front of him to be a stiff one, but he hoped to succeed in doing it by the 1st. On the 30th he moved his camp forward to the ground

below where his memorial now stands, which was then fields or scrub covered flats but is now a stony nullah-bed, for the river has changed its course. It is not easy to reconcile the contemporary sketch of the country, reproduced in Wakeham's book, with the ground as it is to-day; but from an 1840 map in the Survey of India Office an explanation can be suggested. Mansiwalla was properly Mansinghwala, a village on the flats that are now river-bed; Dhulunwalla, now the familiar Dalanwala, was then a hamlet not far from where the present Club stands. It seems that the force moved from Dehra up the Bindal Rao, and then across country past where is now the Imperial Bank; then leaving Dalanwala on its right it crossed the Rispana, whose bed was much nearer to the west, after which it came to the Mansinghwala flats and a small nullah now represented by the eastern bank of the river-bed; the force then turned left and reached its camping ground by the memorial. At the camping ground the bed of the Rispana was seen again and was mistaken for the Bindal Rao; so in the sketch these two appear as a single straight river-bed, and the Rispana with its tributary nullah run as an indefinitely ending curved nullah. It is the absence of accurate knowledge displayed in this sketch, both here and round Kalunga Hill itself, that gives a clue to the subsequent failure of the separate columns for the attack.

Gillespie's plan was unquestionably energetic, but perhaps too ambitious. On the afternoon of the same day that he moved the camp forward he established a party on the spur south of the fort, overlooking the stream called the Garhauli Khala, from the head of which the Gurkhas used to draw their water. Up this Khala still runs the old Gurkha track, ending in a grassy clearing that used to be the ponds, known as the Sagartal, where the stream had been dammed as a reservoir, and where used to live an enormous crocodile, weighing a ton-and-a-half, who met his end in the battle. Batteries were to be established on this Sagartal spur, and the main attack was to be delivered from it; but in addition three other small columns were to advance on the fort from the other three directions, so as to divert resistance from the real point of assault. On the left Captain Fast with three hundred and sixty men was to attack from the north-west, through Lakhaond; beyond him Major Kelly and five hundred and forty men were to circle the hill, past Kirsali, and to attack through Gujarmi from the north-east; on the right Captain Campbell and two hundred and eighty men were to attack from the east, through Asthal. The sketch reproduced by Wakeham

shows the routes followed by the columns, and it shows also the difficulty under which they moved, for the true lie of the ground is considerably different from what it was imagined to be. In actual fact the routes assigned to them brought Fast's and Kelly's columns to within half-a-mile of each other, yet not in position for easy co-operation, and after an unnecessary detour of three miles for Kelly's column; Campbell's column also was given a needless march of three-quarters of a mile out to Asthal and back again, eventually coming in onto the right rear of the main attack. Nor was it realised that Fast's column was really within easy communication of the Sagartal spur, for the main nullah runs direct from Lakhaond to it. This lack of accurate topographical knowledge was not the least of the difficulties imposed by the jungle. The defenders were believed to number about six hundred; the strength of the main storming party and reserve was to be 1,550 and the total of the detached columns to be about 1,200, each one being strong enough to be safe from being overwhelmed alone.

On the afternoon of the 30th, when the Sagartal spur was occupied, the troops were opposed by a desultory fire of light artillery from the fort, and by matchlock fire from a knoll at the end of the spur, not far from the Gurkhas' fort; this fire caused no interruption. During the night batteries were thrown up, and the pieces were brought up by elephants and mounted; then in the early hours of the morning the several detachments marched off from the camp by the Rispana on their allotted tasks, and at daylight the batteries opened fire; the short bombardment was answered briskly by the Gurkhas, who even threw wet bedding onto the British shot and used it again for their own guns. At seven o'clock signal guns were discharged in the camp to enable the detachments to check their position, and the tale still is told that this made the Gurkhas believe that the force had remained in its camp. Perhaps it was this misapprehension which led the Gurkhas to make a move forward from the Sagartal knoll against the batteries; to check the threat two howitzers were immediately slewed round, and they apparently drove the Gurkhas off in disorder, for Gillespie straightaway ordered the assault to be launched, hoping to get into the fort on their heels. Fortescue has described in detail the repeated attempts and failure. The detached columns did not succeed in co-operating, only Campbell's arrived at the close of the engagement. A sepoy who was apparently in that column has described his experience thus: "The road was all through deep jungle, and several of my comrades were

wounded by arrows, which came from the jungle without any noise, and no one was ever seen. Many of the sepoys said it was the work of *jinns,* and magic. Volleys of musketry were sometimes fired by us when the arrows came thick; but so dense was the jungle that it was never ascertained if any of the enemy were killed or not." He also tells how the Gurkhas' knives were much dreaded, as a touch from them meant certain death, and that at the fort walls the flights of arrows were more frightening than the matchlock balls, for the arrows could be seen; his Captain received an arrow in the chest, which had so broad a point that the Doctor said he would die if it were extracted, but in his agony he wrenched it out and almost died from loss of blood. It may have been resistance of this nature that kept back Kelly's column; a memorial standing at Gujarmi village, either to someone of his column or of Mawbey's previous attempt near there, suggests the likelihood that he was resisted. The stone of this memorial is missing; it became loose a long time ago, and was broken up by children, for which a paternal government fined the village five rupees. Also a long time ago some men in the neighbourhood thought that treasure was buried under the memorial, and one night they started to tunnel under it from a bank near-by; they had only got half-way, though, when dawn came and they decamped. To the south of this, on either side of the hill, Kelly's and Fast's columns must have come to a standstill very close to each other, but the dense jungle would have deadened the noise and prevented either from knowing where the other was.

The end came when Gillespie lost his life cheering his men on to yet one more assault; the shot that killed him was fired by a woman, for the fort defenders were less than three hundred, and as men became casualties women were taking their places. Gillespie has been called rash, but his mind must have been in a turmoil over the protracted resistance; he had been ordered emphatically to co-operate with Ochterlony's advance against Sirmoor on the 1st November, and it was already that date; women could be seen hurling stones at the attackers, showing the slenderness of the defence; one determined rush, and even if the front rank fell the remainder could break through before arms could be reloaded. Thoughts such as these must have governed his mind. With his death disorder set in, but fortunately Campbell's column from Asthal arrived on the scene, and with its help a safe withdrawal was effected to the Rispana Camp. The command now devolved upon Mawbey, who sent to Delhi for some heavy 18-pounder siege guns before making another attempt.

A story exists locally that there was a fight by the Rispana Camp, which may well have been, as it would have been the natural outcome of the reverse for the Gurkhas to have harried the British camp. On this camp site there used to be some graves, but they have since been washed away.

Even with the arrival of the siege train on the 24th November the fight was not over; the wall was breached on the 27th, but an assault was driven back in spite of repeated efforts; no less than 480 men fell. As ammunition had run short, Mawbey picketted the fort water supply on Sagartal, probably breaking down the pond walls and draining them, for it was then that the forty-maund mugger was killed; he also picketted all approaches and cut off the fort's provisions. None-the-less, for a few days, the Gurkhas managed to scrape a little water from what was scarcely more than a puddle, just outside the fort gate, at the head of the Garhauli watercourse. But the privation, coupled with the stench from the corpses, could not be borne for long; during the night of the 29th November, Balbahadur Singh and some seventy survivors made their way through the pickets, and joining up with about 300 more who had been hovering round the posts, they went off to a neighbouring hill. Mawbey sent a party in pursuit, but so gallant had been the resistance that he ordered if Balbahadur were captured he was to be treated with every respect and consideration.

As soon as they found the fort had been evacuated, the troops entered to find the wounded lying there in a ghastly condition. A few women also had been left behind, one of whom, Balbahadur's wife, hurled a knife into an officer's chest as he climbed over the walls of the fort, killing him. After the place had been cleared the walls were razed to the ground; in the course of the work a closed hut, over which the white ants had built a mound, was broken down; in it was found a strange figure, believed to be a live Sadhu, who had been in a trance for ages, which, according to story was taken away to be sent to England.

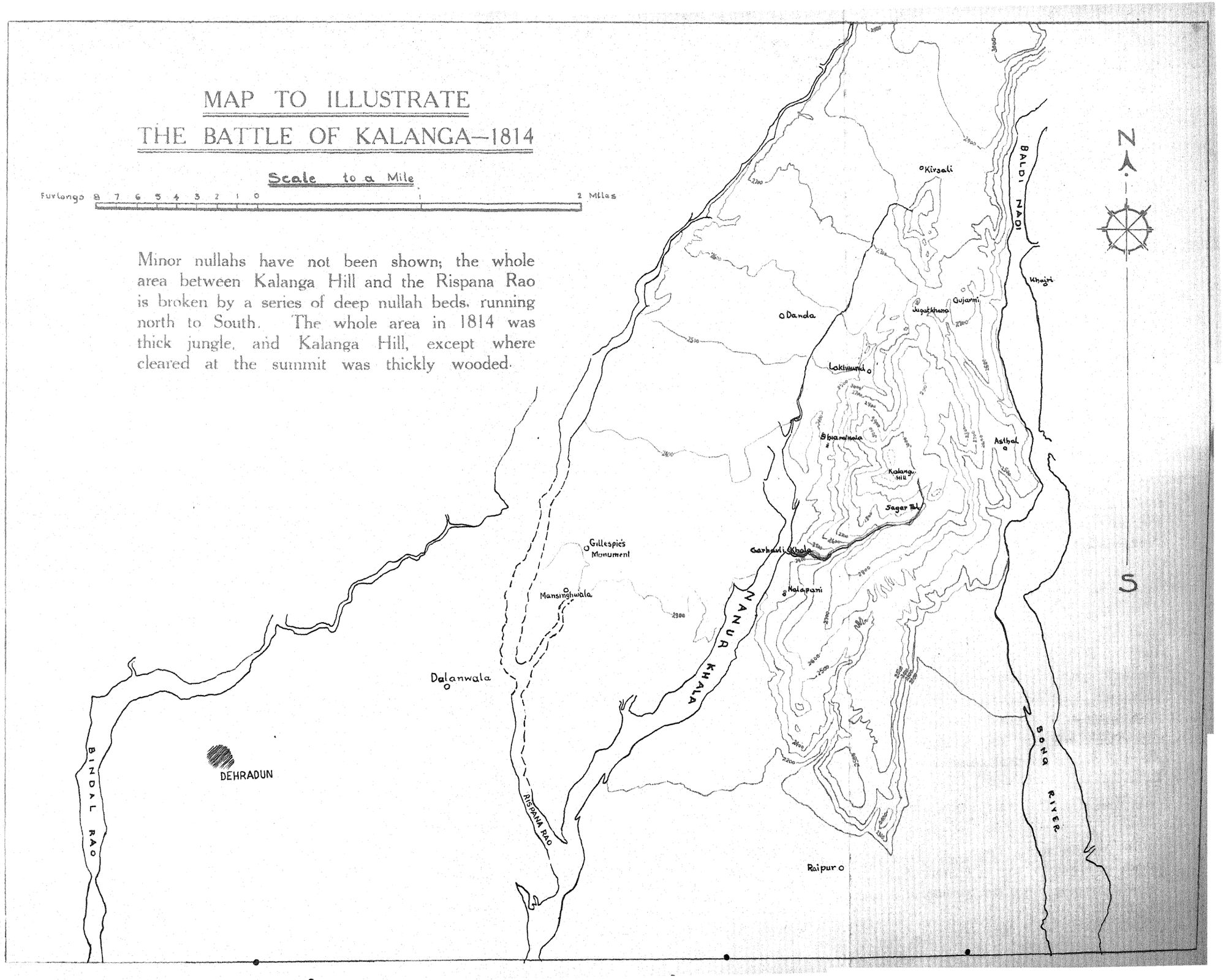
The Gurkha leaders took the field elsewhere; nor did they ever return to claim their wives. About four of these made their home at a temple near-by the spring of Nala Pani, on the slopes of the Sagartal spur. There they died, and were buried under the shade of a banyan tree, a veteran of the forest that is even now slowly creeping down the hillside; it is said to have moved some

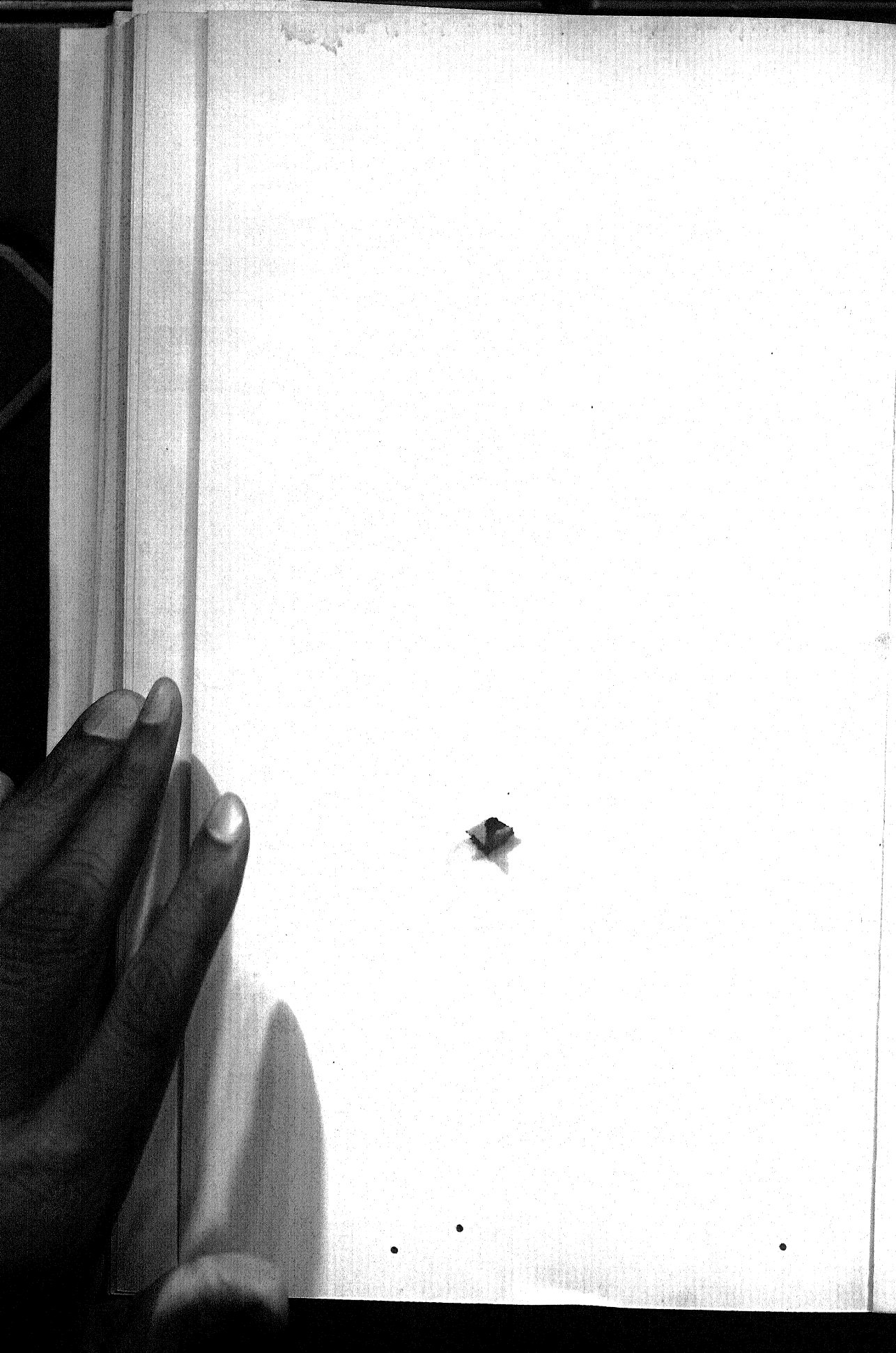
MAP TO ILLUSTRATE
THE BATTLE OF KALANGA—1814

Scale to a Mile

Furlongs 8 7 6 5 4 3 2 1 0 1 2 Miles

Minor nullahs have not been shown; the whole area between Kalanga Hill and the Rispana Rao is broken by a series of deep nullah beds, running north to South. The whole area in 1814 was thick jungle, and Kalanga Hill, except where cleared at the summit was thickly wooded.





fifteen yards in the course of its existence; certainly it has done so since the time of this fight, for the old low walls of the graveyard tell the tale. In the temple compound the Gurkhas planted a *rudras* tree, brought from Nepal, to serve as a reminder to them of the land that once held sway over the Doon. These are stories told by the country folk; some of them came from the benign looking Nepali priest of the temple, a man of advanced years but with the spirit of the Gurkha church militant, and he ended wistfully: "The hill is a very good place for a fort; it seems a pity that no use is made of it nowadays."

MOUNTAIN WARFARE

By Major C. M. H. Wingfield, M.V.O., 2nd Goorkhas

This paper is written with the object of taking, as nearly as possible, to their logical conclusion, in one respect at least, the articles by "Auspex," published in this Journal in April and July 1938, and his letter in this Journal of April 1939. The object of those articles and that letter was to put forward a fresh aspect of frontier fighting in which full advantage is taken of the high standard of organisation and of training to which our Indian infantry should achieve. If full advantage is taken of these things, then there can be no doubt but that the initiative must be throughout with us and not with the enemy.

My object now is to apply this type of tactics to a column of, say, a brigade operating widely dispersed and thus tactically disposed to exert its full strength in mobility and fire power at any moment, mainly by making full use of its ability to inflict surprise.

There is—and will be for some time—a school of thought which holds that the greatest benefit can be derived in battle, in, say, Waziristan, from a column of infantry and artillery moving on a narrow front, throwing up piquets to right and left, deploying for battle only from its narrow head and camping nightly in the low ground with piquets about it. I must show that this is a wrong conception and that there is a far better method of advancing on and attacking one's enemy and of settling down for rest at night.

In order to prove my case I have, in this article, started with a very small force of one company only, for it is on that company that the methods that I advocate are built.

A heavy column with a mass of mules is not a necessity, for we can move, fight, feed, water and rest without a single mule within a brigade, provided that we employ reasonable and light supporting weapons and take advantage of mobile methods of supply and communication which modern development places at our disposal.

Trial by One Company.—The detail that follows concerns a test carried out by one company organised and armed, as far as

possible, according to modernised war establishments, but without any animal pack transport, in order to confirm or disprove the opinions set forth above.

The test lasted fifty-three hours, including two nights away from barracks, during which time the company, except for water and fuel, had no recourse to local produce. The officers and men participating had no preliminary hardening or preparation but were taken away at short notice from their normal individual training. The test was held during the first week in August when the weather was unusually sultry. A constant heat haze limited visibility and, in the middle of the day, on a knife-edged ridge at over 8,000 feet there was not a vestige of a breeze.

Conversely, the nights at over 6,000 feet were cool enough to enable the comfort of a blanket to be appreciated.

The company was carried in lorries twenty-six miles to debussing point. In the course of forty-eight hours, it moved some twenty-two miles as measured off the map and was again picked up by lorries for the twenty-five miles return journey to barracks. The country traversed lay between two motor roads. It was of rough and difficult nature, sparsely inhabited and, therefore, comparatively devoid of tracks. It varied in height from 5,000 to more than 8,000 feet above sea level and had not previously been visited by the unit.

The Assistant Political Agent kindly co-operated by waiving the formality of attaching local levies and left the company to its own resources.

At the conclusion of the exercise the men were physically in good condition and, given rations, were fit to prolong the test for a further forty-eight hours.

Arms and Ammunition.—Each platoon was equipped with three light machine-guns. In each section one rifleman paraded with the gun instead of a rifle. During movement the gun was changed over periodically amongst the men of the section. Platoon havildars carried Verey pistols in addition to their rifles.

Fifty rounds of ammunition were carried by each man armed with a rifle and each rifleman in a section carried, in addition, two light machine-gun magazines. This made sixteen magazines (480 rounds) available for each light machine-gun.

Platoon havildars carried twelve rounds for the Verey pistol (six illuminating, three red, three green).

Sections were much handicapped by the lack of any suitable carrying equipment for the light machine-gun magazines. If the present heavy and cumbersome leather equipment is used, the soldier becomes an ammunition porter and is incapable of carrying out efficiently the duties of a rifleman. The magazines, therefore, had to be carried in the man's pack and this caused a bad distribution of weight. The pack was unduly heavy and there was comparatively little weight in the front pouches. The issue to the Army in India of the 1937 pattern equipment, with its basic pouch, is an urgent matter, for it will provide the necessary carrying equipment and will enable a section of the same strength to carry twenty-four magazines (720 rounds) if necessary.

The expenditure of ammunition would not be heavy when dealing with a lightly armed and mobile enemy of the type we meet on the Indian frontiers and the scale carried by this company is sufficient so long as it can be replenished from the air when required.

The scale of one light machine-gun per section is preferable to the present scale of one per platoon. The extra fire power in the platoon gives it the ability to deal much more effectively with the few vulnerable targets that are likely to present themselves; the platoon commander's task is greatly simplified when he has three homogeneous sections under his command, each of which can produce a volume of fire commensurate with the fire of a whole platoon on the present scale of armament.

The additional (light machine-guns) also give a battalion a large increase of power in the defence and greatly simplify the problem of camp protection.

Personal Equipment and Clothing.—The 1908 pattern web equipment was worn with packs, but haversacks were carried only by platoon commanders, platoon havildars and signallers. The pack was slung by the pack straps so that it could be quickly removed whenever a platoon was in a stationary role.

In the pack was carried, in addition to two light machine-gun magazines:

Mess tin containing ration.
Blanket.
Dover's Cream container.
Jersey.
Socks.
Mug.

All ranks wore the following clothing:

Chaplies.
Socks.
Footless hose.
Shorts.
Shirt, cotton.
Hat, F. S.

The average weight carried by a rifleman, exclusive of clothing in wear, was:

Pack	...	...	14 lbs.
Equipment with kukri and rifle S.A.A.			12 lbs.
Rifle and Sling	...	...	9 lbs.
Total	...	...	35 lbs.

The pack was too heavy and bulky. Bulk in a pack is as great a handicap as weight, for in the hills it affects balance and is apt to catch against overhanging bushes or jutting rocks. If basic pouches had been available, the pack would have been reduced to the more reasonable weight of 9½ lbs. A further reduction should, however, be made in both the weight and the bulk of the blanket. This is possible without sacrificing any warmth. The carrying of the greatcoat was considered but, in its present form, it is too heavy and bulky to be carried in the pack and, by night, does not afford the warmth of a blanket. The jersey also is not satisfactory. It absorbs moisture easily and is slow to dry. A light wind-and-shower-proof jerkin of a material similar to Grenfell cloth would be lighter and warmer and, with trousers of the same material, would provide a warm outfit for wear by night.

Medical.—Four stretcher-bearers carried two blanket stretchers and a medical haversack. Carrying stretchers in the hills is very tiring work and this stretcher-bearer party should consist of two men for each stretcher and an extra man to carry the medical haversack.

Health was very good throughout the exercise and there were no casualties from sickness or accident. The task of evacuating casualties was, however, considered. It is, undoubtedly, the biggest problem that a column of this nature has to face. An autogyro ambulance aircraft would be invaluable, but, failing that, the solution appears to be the use of armoured fighting vehicles and an armoured ambulance which could be summoned to a rendezvous mutually convenient, both to them and to the column.

Mosquito-nets were not carried but Dover's cream, carried in light aluminium personal containers, was found to provide effective protection against mosquitoes.

Sanitary arrangements were of the simplest. The sweeper carried a shovel with which to dig and fill in latrine trenches. A lighter implement in the nature of a mattock would be more suitable.

Water.—Water-testing apparatus and bleaching powder were carried in the medical haversack.

Each *bhisti* carried the canvas part of a 50-gallon tank, together with four short bamboo supports. The metal frame issued with the tank is heavy and makes an awkward pack load, so was discarded.

Each cook carried two four-gallon tins on his back in a special khaki drill carrier. Of the total of six tins, four were used for water. These sufficed to ensure an ample supply of water being available soon after arrival at the night halting place. These four tins were used, also, to supply the company with water and replenish water-bottles at a water halt. The tins were filled from a spring, and the water chlorinated before distribution. Within half an hour the whole company was provided with water to drink and water-bottles were refilled. This included the supply of water to protective piquets round the halting place. The halt was made after the company had been moving over mountainous country for four-and-a-half hours and all men were very thirsty. This method of replenishing water-bottles could not be used in the case of a company moving without its followers and without a supply of bleaching powder. Individual purification of the refilled water-bottle by means of some kind of tablets should be possible in such circumstances.

Owing to the hot and sultry weather a seemingly unquenchable thirst was acquired after very little exertion. Strict water discipline was maintained and consumption regulated, so that the next water-point was reached with water still in hand.

The times between water-points were:

1st day: Start 0730 hrs.—arrived at bivouac 1530 hrs. Move occupied 8 hours. No water provided other than that carried in the water-bottle.

2nd day: Start 0600 hrs.—arrived at bivouac between 1700 and 1850 hrs. Average time for move—11½ hours. One water halt at 1030 hrs.

3rd day: Start 0630 hrs.—arrived at lorries 0816 hrs. No water consumed during move.

As no reserve of water is carried with the column, it is necessary to arrive at the next source of replenishment, or arrange for supply from the air, by the time the water-bottle is emptied. With good water-discipline this should be at least six hours, even in hot weather.

Although a column of this nature carries no reserve of water, it requires a very small quantity to supply its needs. This admits of great liberty of movement in comparison with a column accompanied by animal transport which requires an ample supply of water, available normally only in a river-bed.

The two 50-gallon tanks were filled immediately on arrival at the night bivouac and one was refilled as soon as it was emptied. Tea and water tins were filled overnight to ensure sufficient water for the company to start with full water-bottles in the morning.

Rations.—The Shakarpara biscuit ration was carried in the mess tin as far as possible. Any balance left over was tied up in a handkerchief.

As the weather conditions induced a continual thirst, there was no urge to eat except in the cool of the early morning and late evening, when an ample supply of liquid also was available. Most men had some of their ration in hand on conclusion of the test. The cooks carried, in addition to four water tins, two four-gallon tins for making tea. The tea, sugar and tinned milk were carried by the cooks in these tins. Tea was made before moving off in the morning, and after arrival in bivouac in the evening. Two "brews" were necessary as eight gallons of tea were insufficient to supply the whole company.

Sufficient fuel to boil water was collected in the vicinity of the bivouac.

Bivouacs.—The comparatively small space required for a bivouac makes the selection of a site an easy matter under the circumstances. As there are no animals to be considered, a large area of level ground is not necessary. Bivouacs can, therefore, be sited more for their tactical than their administrative advantages. The closely-packed camp which offers a large and vulnerable target for the sniper's bullet is unnecessary. Companies can bivouac on tactical features and, if needed, afford one another

mutual support. It will usually be necessary to bivouac near enough to water to ensure the protection of water-drawing parties.

If, however, a reconnaissance has been made by daylight the position of the bivouac can be changed after dark. This would render futile any reconnaissance carried out by the tribesmen by day with a view to attacking or sniping the bivouac by night.

The hostile parties, instead of surprising the camp, might well find the tables turned upon them.

Protective piquets would, generally speaking, not be required, as the companies would be bivouacking on the commanding ground. Also, since there would be no clearly-defined camp, a large perimeter wall would not be necessary. The fire power of the company or platoon should ensure its ability to stop any attempt to rush their position.

The time taken to settle in, after the site of the bivouac has been selected, depends on the protective works to be carried out and on the distance that water has to be carried. Two hours should normally be sufficient.

In the morning, cooks started fires one-and-a-half hours before the time of start. The remainder of the company were roused an hour before marching. No lanterns were carried and, apart from cooking fires, no lights were used.

Communication.—Within the company, flag signalling was used in conjunction with a three-letter code. I consider that this method would also be most suitable within a battalion. The heliograph is a heavy load, very dependent on weather conditions and, more than a flag, is apt to call attention to its location. It is a difficult instrument to use behind cover unless the sun is in front of it. I do not consider that it is suitable for any really mobile column. The signal lamp is more portable when used without a stand. It is useful by day on account of having a longer range than a flag, but its light is unnecessarily powerful for use by night within the battalion. A lamp could be carried at battalion or column headquarters, as an alternative to wireless, for communication with other columns, but it can be dispensed with for communication within the battalion. A few pocket torches, modified for signalling purposes, are all that are required for this communication by night. A light Popham panel was designed in two sections and was found to be efficient in use and easy to carry. Each of two men carried one section under the pack flap. Special

light ground strips were carried by headquarters personnel to lay out the column call sign and by platoon orderlies to denote the position of outlying platoons.

Air Co-operation.—It was considered that the following demands were likely to be made on the R.A.F.:

(*i*) Aircraft for preliminary reconnaissance of the area by the column commander and other officers.

(*ii*) Tactical reconnaissance in the area while the column is operating.

(*iii*) Close support of the column by means of bombing and machine-gunning.

(*iv*) Communication with the column by means of message dropping and Popham panel.

(*v*) Location of column and reporting progress to force headquarters when column is out of wireless range or in event of wireless interruption.

(*vi*) Dropping of ammunition, water, rations or medical supplies.

(*vii*) Photographs of the area of operations.

Roles (*i*), (*ii*), (*iv*) and (*v*) were actually carried out. Roles (*iii*) and (*vi*) could not be carried out as supplies dropped could not be carried or expended and offensive action had to be reserved for cases of actual necessity. In spite of bad visibility, the aircraft were very quick in locating the column and demonstrated their ability to carry out the tasks demanded of them.

Results of test.—This test proved the ability of suitably trained, physically fit infantry to operate independently of any wheeled or animal transport for a considerable period over almost any kind of country, provided that water is, or can be made, available. A whole battalion could easily move in a similar manner to the one company; in fact the increase in strength would render protection an easier matter.

The troops on this test were carrying a badly balanced and more bulky load than is desirable, and this would reduce their fighting efficiency in difficult country. But the issue of the 1937 pattern equipment and the reduction in weight and bulk of the government blanket would make a considerable difference. Although an increase in the amount of ammunition that could be carried for the light machine-gun would be possible with the 1937 equipment, I consider that the amount actually carried, namely,

two magazines a man, is the maximum he should be given if his activity is not to be hampered.

One of the most obvious advantages was the complete absence of "tail," since six followers were the only portion of the company who were unable to protect themselves. In the case of a battalion this unarmed party would be approximately thirty strong and would move in the vicinity of battalion headquarters. In order that they can do their best to protect themselves, they require to be trained to the use of ground and cover.

Communication with battalion headquarters, which in the present case was over twenty-five miles distant, was maintained through the medium of aircraft who were in wireless communication with a R/T Tender at headquarters. It appears that this must be the normal method of maintaining communication between columns and force headquarters, as the range of a one-man pack wireless set is too limited for this method to be relied upon.

The one-man pack wireless set is, however, necessary for communication between battalions working in an area. Experience may show it to be necessary in companies but I do not think that this is so. It is also essential for communication with aircraft when the latter are carrying out a close support role. For this purpose it would be necessary for the aircraft to be equipped with a similar one-man set in addition to its normal wireless, and for a Popham panel signal to be displayed to signify to the pilot that the column commander wanted him to adopt a supporting role and to open R/T communication with him.

While aircraft can be used to replace long-range artillery, there is an urgent necessity for a reasonably accurate short-range weapon. The three-inch mortar which proved such a useful weapon during the fighting in Spain, in mobile operations in Persia and in other places at the end of the war, is probably suitable. We have had plenty of experience of mortars of this kind and it is difficult to see why their introduction into the Army in India has been so long delayed.

The light machine-guns of the support platoon should be dispensed with and the platoon should carry and operate the three-inch mortars. The loads are heavy but it is suggested that the support platoon, if armed with pistols in place of rifles, could carry two three-inch mortars and thirty bombs. In any case the

flat trajectory light machine-gun is not the right weapon for use in a support role in a battalion and it is wrong to try to force the weapon into a role for which it is barely suited.

In other semi-civilised parts, both the Germans and ourselves have at different times made use of porters. There is no reason why we should not train and employ enlisted personnel in this capacity. These men could be fully trained or partially trained infantry soldiers. At any rate, they should be capable of using effectively whatever firearm is given them for self-defence. They are thus an asset and not, like the poor mule, a complete liability. Moreover, in the course of a day, they will probably eat and drink less than a mule, load for load. They would not, moreover, require the services of a trained soldier to groom, feed and water them.

Recommendations as a result of the test.—Experiments should be carried out to determine the possibility of carrying the three-inch mortar and its ammunition as man-pack loads.

Experiments should also be carried out using one-man pack wireless sets to direct aircraft to engage targets which would normally be given to artillery.

Search should be made for a lighter blanket that would form a more compact load.

Investigations should be made with regard to the possibility of providing the soldier with a jerkin and trousers of a material similar to Grenfell cloth.

The one-man pack wireless sets should be issued to frontier defence troops on the scale of two per battalion, with a reserve in the hands of the brigade commander.

The Force of the future.—The force of the future, as I see it, will not be a long clumsy column advancing on a narrow front astride a road or river-bed. Such a force is doing little more than providing protection for its mass of transport. The tribesman can anticipate its line of advance and, at his leisure, formulate his plans to inflict the greatest possible number of casualties on the column with the least risk to himself. Such a force surrenders to the tribesman the enormous advantage of initiative and surprise.

I propose that we should so use the force at our disposal as to recapture those advantages for ourselves.

To effect this, we must neither be tied to an obvious line of advance nor must we be entirely dependent on a single line of advance. Battalion columns, self-contained and unfettered by any form of animal pack transport, will move across-country on a broad front, while brigade headquarters co-ordinates their movement.

The battalion commander would have at his disposal four rifle companies with a total of thirty-six light machine-guns and a section of two three-inch mortars with his headquarter company. Battalion headquarters and the headquarter company would consist of commander and staff, intelligence section, communication personnel and mortar platoon. A party of about thirty followers, controlled by company quartermaster-havildars, would move in the vicinity of battalion headquarters and would be the battalion's sole liability in the way of unarmed personnel, always provided that we have not adopted the more sensible system of armed porters. Two one-man pack wireless sets would be carried by communication personnel; one for communication with neighbouring battalions and brigade headquarters, and the other to work with aircraft in the event of long-range support being required. The brigade commander would have at his disposal a liberal allotment of aircraft with a Royal Air Force officer and a R/T tender at his headquarters. If brigade headquarters happened to be near a landing ground, the brigade commander in person would be able to observe and control the operations of his brigade from the air.

The Place of Mechanised Forces.—We require, in addition to our infantry brigade, a small mechanised force. The vehicles of this force should be armoured and, thus, the occupants should be practically invulnerable to the tribesman's small arms fire. We do, however, require that this mechanised force should include some men who can leave their vehicles for the purpose of local protection. Therefore, the force should include some infantry carried in armoured trucks or armoured lorries. We must remember that, though of some use in other parts of the world, the unarmoured truck is a menace for tactical troop-carrying work on our North-West Frontier when the heights are not held on each flank. This mechanised force would be able to move out to a signalled rendezvous, with armoured ambulances, to collect the casualties of our infantry columns. It would be available to con-

voy supplies to a base to which the infantry battalions would return on conclusion of their operations. It would assist in providing protection for the movement by mechanical transport of our infantry battalions in the initial and concluding stages of their operations. It would be available to co-operate, at short notice, with the infantry brigades by establishing a cordon, blocking a line of withdrawal, or otherwise dealing with parties of hostiles withdrawing from the area combed by our mobile battalions. It would form a *point d'appui* for our mobile infantry operations.

The Place of Aircraft.—Aircraft would be an essential and valuable component of the new force.

At present their usefulness is limited by lack of landing grounds. This is unavoidable in mountainous country with aircraft of present types. When the auto-gyro is developed sufficiently to be reliable in conditions pertaining to mountainous country, it would extend considerably the use of aircraft. The construction of a landing ground of the necessary size would be a task within the compass of a company of infantry and there would be few areas in the vicinity of camps which would not afford the requisite space.

The auto-gyro would be useful for the following duties:

(*i*) Liaison between the military commander and the officer commanding R. A. F.

(*ii*) Preliminary personal reconnaissance by brigade and battalion commanders.

(*iii*) Observation and control of operations by the brigade commander.

(*iv*) Evacuation of casualties in ambulance auto-gyro.

The following tasks would be carried out by normal service aircraft from their own landing grounds:

(*v*) Tactical reconnaissance of the area while the columns are operating.

(*vi*) Dropping of ammunition, water, rations or medical supplies.

(*vii*) Close support.

(*viii*) Photography.

(*ix*) Contact between columns, if an auto-gyro is not available.

Conclusion.—There is, to my mind, no doubt whatsoever that the mobile tactics and mobile columns that I have here sketched are to-day a practical possibility. We very badly need the three-inch mortar; but we can just get on without it owing to the surprise and the general tactical power provided by the method of movement that is advocated herein. It is fair to say that this method of movement will enable us to hold the initiative over our frontier enemy in a manner in which it has never yet been held by us; for at all times we are disposed to fight and at all times we are free to move wherever we will.

PERMANENT FORTIFICATIONS AND THE POWER OF MANŒUVRE

By Le Polemarque

Translated by Major G. E. Wheeler

(With acknowledgements to "L'Europe Nouvelle.")

During the past fifteen years, France has recommenced the work of Vauban and Seré de la Rivière. She has progressively built up on her frontier a fortified barrier which, begun in Alsace and Lorraine, has gradually been extended from the North Sea to the Mediterranean. Any gaps that may now exist on the Jura frontier can be regarded as filled by the fortifications constructed by Switzerland on the Rhine and on the St. Gothard Pass, fortifications which are actually outworks of our own system.

Germany for a long time exhibited a traditional unwillingness to adopt this method. The veteran Moltke used to say that "the history of fortresses is bound up with history of capitulations," and Imperial Germany possessed no fortified defensive system. The fortified towns of Thionville, Metz and Mutzig were offensive and were designed to act as cover or as fixed pivots for the powerful offensive operations planned by Schlieffen. In 1914, the operations of the Crown Prince of Bavaria which were to result in our reverses of Morhange and Sarrebourg were, in actual fact, based on Mutzig and Metz. The offensive which, according to the Imperial General Staff, was to result in our final defeat was based on Metz and on Thionville.

After the war, there was some hesitation as to the method to be adopted. The extraordinary resistance offered by improvised fronts had been striking. From the winter of 1914 onwards, attacks had been held up by, and proved impotent against single lightly-wired trenches defended by machine-guns. In 1916 and 1917, the best prepared and most strongly supported attacks broke down after advancing a few hundred yards and were powerless to effect a break-through.

During 1918, to break down the resistance of a position involved a huge concentration of supplies, of tanks, of quick-firing artillery and of gas. It necessitated, besides, a vast expenditure of man-power which gradually caused a serious reduction in the strength of the troops holding the trench systems on both sides.

It had, in addition, been observed with astonishment that all the great fortified places such as Liege, Namur, Mauberge,

Antwerp, Lemberg, Ossoviecs, Novogeorgievsk and Brest-Litovsk had fallen in a few weeks—sometimes in a few days.

The first conclusions drawn by the belligerents had been inclined to favour field fortifications to the detriment of permanent fortifications. Even Verdun appeared to have owed its salvation rather to Petain's soldiers than to the concrete of its defences. On closer examination, these definite conclusions had to be revised though it remained none-the-less clear that any isolated fortified place, whatever the quality of its defences, was doomed. No fortress could be maintained which was not part and parcel of the general organisation of an army.

Field fortifications, on the other hand, required vast labour for their construction, and their maintenance demanded constant effort. They were, therefore, contrary to first impressions, extremely costly. Finally, field fortifications in modern war must be continuous in order to obviate any possibility of infiltration and must be organised in depth to lessen risks and check the development of local incidents.

The Maginot Line

It was in the light of these conclusions that France, from 1924 onwards, studied the defensive organisation of her frontiers. Defensive fortifications must be both permanent and strong; they must also possess continuity and depth—an idealistic programme which not only involved huge expense but very great delay. Our engineers had, therefore, to make a choice and they decided in favour of strength combined in the first place with continuity. Depth they postponed to some future date.

Along the frontier zone was plotted a line of resistance of which the principal works constituted the bastions, and the connecting systems, which were smaller though no less strong, the connecting walls.

Beginning with the vital districts of Metz and the Lower Vosges, we have gradually succeeded in constructing on our frontiers an almost continuous line of fortifications which vary in form according to the nature of the ground. The organisation of depth, which has been begun in some places, is sometimes necessary in the case of old fortifications since modernised; in most cases the requisite depth will be achieved, when the time comes, by field fortifications.

We are thus systematically covered by a continuous line of fortifications which, though thin, is, owing to its scientific perfection, extremely strong. For a long time its weak point lay in an

insufficiently strong garrison which left a large part of the fortifications exposed to the possibility of surprise. For several years, however, and especially since the reintroduction of the two years' system of compulsory service, all danger of this nature has been eliminated.

The Siegfried Line

For a long time the German General Staff remained faithful to Moltke's ideas. Even after the return to Germany of the Rhineland, it appears that, with a few exceptions on the eastern frontiers, the work of fortification was neglected. In about 1936, however, some fortifications made their appearance on the Rhine, especially opposite Kembs and at Neu-Brisach. At the beginning of 1938, the line approached Mayence and reached the south of the Taunus. The situation changed radically in May 1938 during the first phase of the Sudeten affair. It seems that the German politicians had suddenly become alive to the vulnerability of Germany in the Rhineland and had ordered the Army to arrange for the protection of the western frontier.

Continuity, the fundamental lesson of the war and as applicable to the Germans as to ourselves, had to be achieved. Strength also was essential but it could not be the strength of concrete and steel for the construction of a line materially strong takes months if not years and the Führer was in a hurry. Of necessity Germany had to hark back to the methods of the war and to insure strength by organisation in depth. The Siegfried line, therefore, takes the form of a series of positions consisting of several lines of trenches each of which is covered by thick barbed-wire entanglements and by tank-traps. The line has an average depth of six or even ten kilometres.

The creation of such a system in a few months required enormous labour. The methods of the Nazi Government, however, enabled the hundreds of thousands of men necessary to be requisitioned or mobilised and this was done during the summer of 1938. We thus find in existence a covering defensive line along the Rhine and particularly strong defences straddling the historic routes of invasion: the Palatinate plain to the south of Landau, the Sarre covering Sarrebruck and also the road from Mayence *via* the valley of the Glan; the Moselle to the south of Trèves; the Aix-la-Chapelle corridor.

The existing Siegfried line must, however, be regarded only as a temporary expedient. Henceforward steel and concrete will also play their part and will gradually lend to the fortifications the technical strength which were lacking in the embryo stage.

Mountain Fronts

Fortifications of a somewhat special kind exist in the mountainous parts of the front. Important passes and corridors on both sides of the frontier are barred by considerable defensive works and even by fortified towns. Smaller works or even mere posts guard the secondary routes or principal tracks.

Strategic and Tactical Effects

On both sides of the frontier, then, are fortified systems which are continuous and which aim at great strength. In France, the basis of this strength lies in the quality of the fortifications; in Germany, on the other hand, it lies in the organisation in depth. As time goes on, both systems will improve: we shall develop depth and Germany strength. In the long run the results will be the same, except that we have the advantage of having adopted a more consistent method from the very beginning and of a technique superior to that of our neighbours. The result will be that, from the beginning of hostilities, strategy and tactics will be confronted by two strong and continuous fronts and the war will open with a situation similar to that of 1916. Manœuvre being no longer possible, we shall have from the start to make up our minds to a war of material with its innumerable guns and its orgies of munitions, the sort of war with whose discouraging slowness and frightful expenditure we are fully familiar. Foch's pronouncement of the 1st July 1915 has regained all its significance. "Since quick-firing weapons came into use, organised defence has held the offensive in check, for the latter has lost its power of manœuvre. At present all strategic action must be based on breaking the enemy's front."

It is useless to contemplate an offensive on a wide front without first rendering possible the carrying out of a huge programme of supply and without extraordinary development of the manufacture of munitions. Tanks, which are useless against the special weapons and devices which their introduction has brought into being, must be reserved for the operations which will follow on a break-through. The war will inevitably be methodical and slow and its successful issue will be greatly facilitated if operations in another theatre should compel the enemy to reduce the garrison of his positions.

Air Action

Since land war on the western front will tend to hang fire, the only form of operations which can be developed are those in the air. It is air action which will be called upon to wear down the material and moral resources of the enemy, that is to

say, bombardment of enemy positions and air-defence both on the ground and as provided by fighter units. Ground air-defence must in particular be developed since every town in the country will be vulnerable. Every township and every important factory will have to have its weapons and the men to man them. Fixed machine-guns and A.A. guns can perfectly well be operated by men of fifty or over.

In our opinion, the complement of fortification lies in the development of air-power and of its antidote, air-defence. We are aware of the difficulty of the task which this involves but it is an absolute necessity. We have to win a financial and scientific battle unless we are to lose the war before it has even broken out.

The Mediterranean and North Africa

On the north-eastern front, strategy is handicapped by the continuity and tactics by the strength with which the builders of the fortifications have endowed their work. For France, then, the field open for manœuvre on a wide front is confined to the Mediterranean and North Africa. Can the Mediterranean, a maritime theatre, be regarded as capable of producing important, if not decisive results? We do not think so. Certain eminent critics have recently supported the view that, thanks to air-power, the Mediterranean could become an active field of operations. One can, indeed, no longer admit the possibility of a naval force shutting itself up in its harbours and remaining invulnerable as in the case of the Austrian fleet which remained at Pola for a period of four years during the last war.

The navy is indisputably an important part of national defence and is essential for the guarding of imperial communications, but we are nevertheless convinced that it will never play a leading part in an offensive. Throughout the whole course of history, naval encounters are rare. If the question is studied *au fond*, it will be seen that decisive results obtained by great naval actions are still more rare, results, for instance, which have led to the termination of a war. To see in the defeat of Villeneuve at Trafalgar on the eve of Austerlitz the beginning of the decline of the Empire is a singular and wilful misinterpretation of history. Had it not been for gross political blunders Napoleon would easily have survived the loss of his fleet.

Navies can contribute largely towards victory but only in conjunction with action on the land.

In North Africa operations are difficult but nevertheless possible. Fortifications, of course, guard normal communications

and established routes. But there remain vast areas—desert it is true—where movement is still possible. Here, as opposed to what is happening in Europe, it is science which comes to the aid of strategy. For centuries all operations in these countries were governed by the question of water; manœuvre was reduced to the movement of unimportant columns of camel-corps going from oasis to oasis—a form of manœuvre, in fact as limited in its power and its extent as slow in its development. All this has been changed with the arrival of the internal combustion engine. It is now possible to effect rapid movement of wide range and capable of surprise action, movement, in fact, which is combined with striking power for, thanks to mechanisation, it is possible to supply large forces with water when they are far away from oases. The Abyssinian campaign has given proof of this.

On the whole, North Africa opens up towards Tripolitana, by way of Tunis, Egypt and even the Sudan, a strategic field full of interest. It is a far-flung theatre, it may be said, and, therefore, unlikely to lead to a decisive result. This is a matter of opinion. To what extent would an Italy already disturbed and divided accept without a qualm, or without, perhaps, revolt, the fall of Lybia and of Abyssinia as well as the investment of the garrisons of the Dodecanese? This would doubtless present an opportunity of using that indirect strategy, so dear to many Englishmen, of which Liddell Hart is the exponent.

Thanks to the motor car, land armies in co-operation with naval forces could doubtess achieve in this area rapid results which they could not envisage in western Europe. We do not, of course, exclude the air force—that indispensable adjunct of all operations whether by sea or land.

Eastern Europe

A third front must of necessity play a part in a possible conflict, that of eastern Europe. In the foreground are Poland and Roumania; in the background, Russia. The very vastness of the frontiers renders any continuous system of fortifications impossible. From Danzig to the Iron Gates, over a distance of 1,300 kilometres as the crow flies, there are at least 1,000 kilometres of open country. If, here and there, as for example in Polish Silesia, short defensive systems can protect an important area against surprise, continuity, the ruling factor of modern defensive fronts, can nowhere be achieved.

There remains, therefore, room for manœuvre, room for Germany as well as for her enemies. We have already, on numerous occasions, spoken of the war-objectives of Germany, of her

designs on the oil of Galicia and Rumania as well as on the agri cultural and mineral wealth of the Ukraine. If Germany economises her forces on the western front, if she puts a check on operations by means of her fortifications, she can then utilise the bulk of her divisions, and especially the mobile Panzer divisions, in the east. If, finally, she succeeds in exploiting the distrust and antagonism which still separate Poland, Roumania and Russia, she will be in a position to gain her main war-objectives in a relatively short time. She can also achieve the economic independence which autarchy has denied her. The defeats sustained by her Italian ally will be of little importance to her. Having at her disposal, without being dependent upon the sea, all necessary resources, having outlets to the Asiatic East by way of the Black Sea, having doubtless obtained access to the Mediterranean at Trieste, Germany, the most numerous race in Europe, will be the mistress of the world's political situation. The United States, her equal in power, would then most probably witness the triumph of the tendency towards isolation.

On the other hand, any check suffered by Germany in eastern Europe and still more, any defeat on that front, would be felt on account of its proximity to Berlin and Vienna. Such developments would rouse again the courage of subjugated people and would serve to sever alliances. They would necessitate, moreover, a removal of forces which would dangerously weaken the western front, just as the losses of 1918 weakened the fortified lines which had victoriously resisted the attacks of 1917.

The fortification of the positions in the west give to the eastern fronts a strategic importance of the first order. To check Germany on the Vistula and in the Carpathians is the prelude necessary to our victory on the Rhine.

Conclusions

To sum up, then, apart from the execution of an extraordinary surprise attack, which must be eliminated as a possibility on either side, and apart from a moral collapse which there is no reason to anticipate, it seems as if, on the North-east and South-east frontiers of France, the initial operations of a war must take the same slow and somewhat discouraging course as those of 1915—1917. It will be a war of munitions in which victory is secured in the factories before it is won in the enemy's trenches, a victory to be prepared for by industrial effort, that is, by artillery, ammunitions, air defence and air power.

In North Africa and in the Near East manœuvre by land, sea and air remains possible, manœuvre in which France and

England, aided by Turkey and Greece, will combine to eliminate Italy.

A war of manœuvre will be inevitable in eastern Europe where Poles, Roumanians and Russians must defend their birthright against the German, the common enemy of both Slav and Latin. For it is now a question not of nations but of races. Hitler has brought Europe back to the age of the barbarian invasions.

The final goal of Germany remains world domination, and the means to that end is first of all the acquisition of the riches of the East. Let us hope, in conclusion, that an excess of scruple based on the perhaps too narrow conservatism of the old democracies will not lead to a Germano-Russian combine. This would mean for Germany the illimitable advantage of a victory without war.

FIELD SIGNALS

By Major D. McK. Kennelly,

5th Royal Battalion, 5th Mahratta Light Infantry.

The aim of the attack should be, as a general rule, to attack weakness rather than strength, and to exploit opportunities for infiltration to the utmost.

[*—Infantry Training, 1937, paragraph 63 (3).*]

In attack this has been the doctrine of all armies from about 1916 to the present day. In theory the aim is an excellent one; in practice it is often difficult to accomplish. The manual admits the difficulty in a later paragraph:

CONDUCT OF THE ATTACK

Sections may be in exposed positions under heavy fire, and it may be difficult or impossible to collect their commanders. In such situations it will generally be advisable to leap-frog reserve platoons through the forward ones." [*Paragraph 66 (8).*]

The excellent doctrine of attacking weakness is scrapped in the latter sentence. The reason is clearly stated. It is because forward troops under heavy fire cannot get information back to their commanders. No attempt is made to overcome the difficulty—reserve platoons are directed to move through platoons which have already been held up. Is this necessary? Cannot forward sections and platoons direct reserves to ground where they will not come under the same effective fire? Such a system would be inadvisable. A forward section commander is not justified in sending his platoon commander an order as to his line of advance, neither is a platoon commander authorised to send his company commander similar directions. Messages sent by runner cause delay and under fire delivery is uncertain. The foremost troops rarely have signallers with them to inform their commanders of the situation and in any case their methods of signalling including messages by semaphore would be unsuitable in the circumstances. The message for a change of direction *can* be sent to reserves by means of field signals but would not help the commander, for it is very often more effective for him to support with men on one flank and with fire from the other. The only remaining alternative is for the use by forward troops of field signals which will give information vital to reserve commanders.

A commander requires to know first of all when his forward troops are definitely held up and in the second place the approximate position of the enemy holding them. If he can obtain this information quickly he can attack weakness and exploit opportunities for infiltration; without it the most advantageous use of reserves and fire power become a matter of chance. A move to the wrong flank either of men or fire support weapons may bring disaster on his command.

Now, in the authorised field signals given in Infantry Training, 1937, there is no field signal with which to impart this important information. A forward section under heavy fire can do no more than remain where it is and hope that the platoon commander is able to see what is going on. He on the other hand may neither realise that the section is held up nor the direction from which fire is coming, for effective fire is always from a flank and may be from some considerable distance. An advance by him on one flank or straight ahead will bring his men under the same enfilade fire whereas the ground on the other flank will be untouched by this fire or in any case the fire will be more frontal.

It is suggested that there should be distinctive field signals (*a*) to indicate the need of support and (*b*) to give the enemy's approximate position. Section 31 of Infantry Training, 1937, gives only three field signals for communicating information about the enemy: "enemy in small numbers," "enemy in large numbers" and "no enemy in sight." These may have been very useful in the Boer War. It is extremely doubtful whether they were used in the Great War; and even more unlikely that they will be used in the next. In modern warfare the commander of forward troops will hear and be subjected to enemy fire long before he can see the enemy, so the receipt of a message "Enemy in sight in large numbers" would be of no practical value.

What every forward commander does want to know is the position of enemy localities which, by their fire, are holding up the advance. It is advocated that simple field signals be adopted which will convey this information quickly and with little chance of error.

To turn from destructive criticism, here is a suggestion for the required field signals: All N.C.Os. carry, or should carry, message pads in their haversacks. If this pad is covered with bright orange coloured cloth on one side and khaki cloth on the other, it becomes a convenient and inconspicuous means of sending signals to the rear. When held up by enemy fire the section or platoon

commander will convey the fact to his respective superior by a few slight movements of the pad from side to side with the orange cloth facing the rear. The signal would be repeated at short intervals until answered. It indicates that the sender is definitely held up and cannot advance without some form of support. It is visible to the naked eye in average light at six hundred yards and in poor light at four hundred. All signals are given from the lying position. Visibility can naturally be increased or diminished according to the size of the message cover or with the use of the bayonet which can be fitted into two slots in the orange flap of the pad. This is really a matter for official experiment, not necessarily of this system but of a system of the kind.

Indication of the enemy position is given as follows: The section commander notes a point to his front which is in continuation of the line from the platoon commander to his own position. He then estimates whether the enemy locality is a quarter right or three-quarters left and so on of this line, and judges the distance of the enemy from his own position. He should overestimate the distance rather than underestimate it. Having done this he indicates the direction of the enemy by slowly moving the pad to arm's length at the desired angle to show the direction of the enemy from the central line. This signal is maintained or repeated until answered correctly. For the range, each semi-circular wave of the pad denotes two hundred yards. It has been found by experiment that this unit of measure is sufficient for the purpose. A smaller unit of measure leads either to a more complicated signal or entails undue movement. The signals are repeated by the platoon commander or his assistant who should ensure that the angle of direction corresponds exactly with that of the sender as both are showing an angle from a central or zero line. These signals are visible in dull light at four hundred yards. Beyond that distance field glasses should be used. The system may sound a little complicated on paper but in actual practice is very simple and quick. An intelligent man can learn it in less than half an hour. He has no clock face or compass bearing to bother him—just an easy estimation of direction and distance.

The suggested method has some disadvantages which would have to be overcome. For instance, a call for support may be answered simultaneously by two commanders of reserves. This should seldom occur but in case it does, a special signal is necessary by which the sender of the call can select the recipient for his message. It is not an insuperable difficulty; a rifle signal could

be made to answer the purpose, or very simple code calls be adopted for use with the message cover. Failing this the sender can screen his signals from one commander by the judicious use of cover. Should the two reserve commanders be near each other or on the same line, then it is advantageous for both of them to receive the message. Another disadvantage is that junior commanders would have one more lesson to learn. However, if the present field signals with the rifle could be abolished, a few new ones would not cause any extra burden.

There is the danger of the enemy using the signals for sending bogus messages but as no great distance is involved commanders of reserves should be able to identify their own troops. Here again a simple code call would overcome the difficulty. Admitting the disadvantages of the system—and no system is perfect—it is contended that they are outweighed by the advantages. In the first place it gives commanders of foremost troops a quick method of sending back information of the situation when all other means have failed. Secondly, it provides information which does not commit the commander of a reserve to any given line of action. The manner in which he supports forward troops is entirely at his own discretion. He may do this by fire, by the movement of troops, or he may decide to carry out a further reconnaissance before acting. In any case the information is of great assistance to him. With a little elaboration, such as a special calling up signal, the system might prove of value in giving warning of a tank attack. At present during movement forward troops have no quick means of doing this.

Fire support weapons of forward troops have been more than trebled in the last few years, whereas during movement their means of communication are the same as a generation ago. Unless these methods of communication are improved to meet modern conditions, fire power and man power will be wasted in the next war until units improvise new methods of their own.

ABOUT MEDALS

By "Millstone"

Few are likely to quarrel with the criticism that, generally speaking, the notification of the award of any medal is invariably unduly belated. Excluding "immediate" awards, this applies to both campaign medals and to medals for distinguished service or valour. There are, of course, difficulties. In respect of distinguished services and gallantry awards each recommendation must be thoroughly vetted to ensure there is no lowering of high standards and it is understandable that there should be no unjustifiable multiplication of campaign medals by making awards at too early a stage. But these considerations appear to have gained so all-exclusive an importance that the basic underlying reason for any mark for gallantry or distinguished service appears to be in danger of being forgotten. The reward to the individual merely serves a narrow and secondary purpose. The main object is to encourage the spirit of emulation. Or at least it should be if the lead of Napoleon is to be followed. It was this master of psychology who rated that object pre-eminent. It was he who first systematised the award of medals and gave the recognition of Government to these emblems gained in the service of Government. To-day in France the underlying spirit of Napoleon's purpose survives. The spirit of emulation is encouraged by the speed with which an award is announced and the ceremony with which the recipient is invested. To each is the salute to the brave and to each a few stanzas of the *Marsellaise*. Such elaborate ceremonial of presentation may be unsuited to the British character but who can deny that belated award followed by belated presentation robs the emblems of some of their lustre? And is the spirit of emulation encouraged whatever the reasons for delay may be?

As for campaign medals, a singular lack of imagination exists in the situation that permits a soldier all too frequently to have left the colours before he receives his mark of recognition. Of course, it is something that he is permitted to wear the ribbon before he receives the medal but with our short service army it is not difficult to estimate, on the seven years' colour service basis, what proportion of men awarded a campaign medal for a minor campaign are denied the privilege of wearing their medal in uniform unless they are again called to the colours. In a great war

the vast majority have usually been demobilised long before the issue of the first campaign medal commences.

So much for the past and the present, but the future would appear to hold new problems for solution. In quite a new way our democracy is binding itself to national service in volume, extent and form as never before. The combination of compulsion with the voluntary system, for both service in the field and at home, finds no parallel in the past nor does the almost certainty that future hostilities will cover both the battle zones and the home country. This is bound to raise interesting and difficult problems; problems that could be considered and solved in anticipation and should be so solved if dilatoriness in the issue of campaign and other medals is to be avoided in the next emergency. For example, are the personnel of an anti-aircraft battery in, say, Cumberland, to receive the same campaign medal or medals as those serving in an anti-aircraft battery at the overseas base? If so, where does this stop? Are the workers of a bombed aircraft factory to receive the same treatment as the A. R. P. workers who came to their assistance? Perhaps the answer may be a medal similar to that issued by President Hindenburg in 1934 "for services in the Great War to every German citizen who rendered military services for the German cause or for the cause of the Allies of Germany." The medal of those who served at the front was distinguished from that of those who served on the "home front" by bearing upon it two crossed swords. It is thoughts such as these that lend argument to the proposal that the primary control of medals of all kinds should be removed from the several Defence Ministries and should be transferred to the Central Chancery for the Orders of Knighthood. Only by some such reorganisation would opportunity be created for timely and co-ordinated planning. The existing Inter-Departmental Committee that deals with such matters in England is prone to work "in arrears" and the basis of its organisation leaves no alternative.

The more immediate purpose of this article, however, is to examine what future changes might appear desirable for an army fighting an overseas campaign. The British army of the future will see units of Regulars fighting side by side with Territorial units and both of these are to have their battle and other casualties made good, as the war progresses, by drafts from the conscripted Militia. As the war continues, there will be an increasing leavening of the Regular units by an observant and educated body of democratic civilians. At least one major political party in Britain is pressing for another vital change: that all future

officers should preface their commissioned service by some period spent in the ranks. The drift is towards democratising and civilianising the army. The few remaining vestiges of privilege are fading. If we are to take note of these factors, and plan intelligently for the next emergency, it might be that we should pay regard to considerations such as—

(*a*) The desirability of narrowing the disparity between the proportionate awards for valour to officers and to soldiers.

(*b*) The need to make some distinction between those who bear the burden of the actual fighting and those whose tasks are not so dangerous.

(*c*) To give to each their reward for valour or for service at the earliest possible stage and thus serve the object of encouraging the spirit of emulation.

In preparation for any planning based on those or similar considerations, the view is put forward that there should be an amalgamation of certain existing awards for valour and that the circumstances of their future award should be tightened up considerably. The standard should be raised to a higher plane and fewer should be awarded. As regards amalgamations, it is suggested that the V.C. and the D.S.O. remain as at present, but that the M.C., the D.S.C. (Navy) and the D.F.C. (Air Force) be replaced by a new decoration named the "Distinguished Service Cross," that the D.C.M., the C.G.M. (Navy) and the D.F.M. (Air Force) be replaced by a new decoration named the "Distinguished Gallantry Medal" and, lastly, that the M.M., the D.S.M. (Navy) and the A.F.M. (Air Force) be amalgamated in a "Distinguished Service Medal." This brings the Services on to the same footing, permits of three awards for valour to both officers and men and eliminates a multiplication of medals that has no *prima facie* justification. With the ground so cleared and bearing in mind that the necessity for maintaining a high standard for such medals will invariably require time for the examination of recommendation and hence delay in notifying their award, the following further medals are suggested for award during the campaign to meet the considerations specified at (*a*), (*b*) and (*c*) above:

The War Cross.—The three essential features of this decoration would be its award for collective as well as for individual action, that it would be essentially the "immediate" award and that the authority for award would be a citation in infantry brigade or equivalent orders. For a patrol or a raiding party or an

armoured fighting vehicle crew that had done good work to the adjudged standard, it would not only be the leader but many or even all of the men who would be decorated. Similarly for the crew of an aircraft or say the crew of a motor torpedo boat in the other two Services. It would definitely be restricted to action in face of the enemy in the strictest sense of the meaning of words and would not be awarded for action under that elastic term "under enemy fire." The medals in the required numbers would at all times be available for presentation at the earliest moment. Another object of the medal would be to meet a purpose that has all too little recognition in the prevailing system; the need for recognising conspicuous *fortitude* as well as conspicuous gallantry. Can anyone reasonably deny the case of the infantryman who served, say, two years in the trenches in the last war, whose demeanour and conduct in face of the enemy had been exemplary and who had never been absent from his duty by reason of sickness or wounds? Admittedly the distribution of the War Cross on the lines suggested would lead to far greater numbers being decorated but by such a medal we would tend to avoid what is at present not too infrequent, *i.e.*, that awards for gallantry are sometimes invidious distinctions in that several may have done equally well but one is chosen as the lucky recipient.

The Campaign Medal and the Medal for the Wounded.—The Great War recognised the necessity for badges to denote years of service in the war theatres as also to single out those who had been wounded. It is interesting to surmise what logic underlay the assumption that whereas the badges were desirable or necessary in war, they had no place in the succeeding peace. The indication of war service can as equally well be met, and in a permanent form, by the grant of the first campaign medal by the end of the first six months or so. The main point is that if the grant of the first medal is decided early, the need for service chevrons does not arise. Whether subsequent campaign medals would be necessary could be decided as time progresses. A suitable scheme might be as follows: The first campaign medal would cover the first two years; service in each of the two years to qualify for a bar to the medal and a rosette on the ribbon. On completion of two years of war, the "National Defence Medal" would also be issued. This would be on the lines of the commemorative medal issued in Germany in 1934, to which reference has already been made, and would be awarded to all Defence Forces of the Nation, civilian as well as fighting services, whether serving at

Home or overseas. The question of further campaign medals could then be postponed for decision until after hostilities.

The case for a medal for the wounded is based on two grounds. Firstly, to satisfy the consideration noted at (*b*) above, and secondly, to give some tangible reward to those who will, in a great number of cases, carry some physical incapacity for the remainder of their lives. In a large number of cases, the fact of their being wounded denies them further opportunity of gaining rewards for gallantry. More in the case of this medal than any other would most stringent rules be necessary. Perhaps the most important would be that for the purposes of the award, only evacuation to and treatment in a casualty clearing station or beyond would qualify for appearing in the lists published for the purpose in Corps Orders.

Whatever views may be held by different individuals, there is little to be said for the existing system as far as the soldier is concerned. For them, the distributions of awards for gallantry are so few and far between in proportion to their numbers that the normal odds on any soldier receiving such medal assumes the dimensions of the odds against a rank outsider in a classic race. Only in one regard are the odds relatively even as between soldiers, *i.e.*, in the majority of cases the soldier who has literally faced death for seemingly unending months and years will conclude the war, if he survives, with the same emblems for his fortitude as the man who baked bread at the Base.

VANCOUVER ISLAND ON A PENSION

By Major-General Sir Ernest Walker

For the last few years before I retired I read a great deal of literature about different parts of the Empire and what they had to offer to the retired officer and civilian. Much of this was frank propaganda and some of it was out of date, so it struck me that our impressions of our first year here would be of interest to those who are approaching the end of their service. I retired in August 1937, arrived here last April and this is written in January 1939.

I should like to clear the air by saying that this part of the world is only suitable for a certain type. I can think of a good many friends and acquaintances in India who would not fit in here. You must first of all be a countryman at heart with a countryman's interests in the land and the trees, the garden and the birds. You should, preferably, be a shikari. Best of all, a fisherman. You should be satisfied with the simple things like bread and cheese and the log fire on the hearth. If you feel that life is empty without a London Club, that Devon is a charming county but it is too far from town, or if you habitually let the bearer put on your socks, this is no place for you.

I think that it is the people with young children to educate who should consider very carefully the question of settling out of England. Canada is for the Canadians, naturally; if you are prepared to give your boy a completely Canadian education and make his life here, well and good. The education available is excellent. The Government schools are good and practically cost-free. There are also good private schools on the Island comparable to the English public school of the smaller type and costing about the same or less, and the girls' schools of the same class are excellent and cheap. There is also Kingston which admits boys from fifteen to nineteen years of age and gives a four-year education for £300 which is a great bargain. To this must be added the high cost of transportation from Eastern Canada if your boy is to come home even once a year for holidays. Kingston is really a civil engineering college which gives a first-class general education as well, and from it boys go direct into the British Service and the Indian Army, and as we all know it turns out very fine men. But there is this difficulty: the boy is, say, in the Indian Army and his parents have settled here. He has neither the money nor the

time on his leave to come here easily, his pals all go Home on leave and he wants to do so as well. I know instances here where this is a very real problem involving in some cases the question of selling up and leaving the country.

The other objection is the feeling which many people have of being far away from the centre of things, "cut off" as they say, from good theatres and good music for instance. Actually England is not so far away. If you go by rail across Canada and by one of the slower and cheaper ships across the Atlantic it takes about thirteen days. If you are in a hurry you fly from Seattle and catch the "Queen Mary" at New York and do it in eight. A return ticket from Duncan, doing it comfortably, will cost you £90; you can do as cheaply as £70.

There is also the general question of comfort and the standard of living. Anglo-Indians (in the old meaning of the word) are supposed to be rather helpless creatures in Canada, used as they have been to being waited on hand-and-foot by hordes of Oriental slaves. Actually we have never been so comfortable or had such good service and cooking as we get from one very efficient Chinaman. This is partly a question of money; my Chinaman gets £9 a month but he is worth it.

I cannot think of any more disadvantages so we may examine the other side of the medal.

Being a Scot I should like to state that this is a cheap country to live in and good value. I have a soundly built house of eight rooms with lawns and garden and twelve acres of land running down to the shore of a lake situated on a good road five miles from the small town of Duncan which is our shopping centre. The house has polished floors, panelled walls, central heating, electric light and power, unlimited hot water and electric cooking, double garage and other outbuildings. Telephone of course (£5/8 a year). This proposition cost me £1,600 and I am considered locally to have paid too much for it. The local taxes on the property amount to £15 per annum. Current costs 1¼d. a kilowatt, coal 36s. a ton, and wood is cheap; I cut a lot of my own actually.

There are houses of all kinds and prices for sale. The most expensive and the most attractive are those with sea or lake frontage as mine has. They are also the easiest to sell. We lived in a charming modern house in Victoria which is for sale for £900 and I could have bought quite a good house for £800 here in the Cowichan Valley. There are very few houses to rent though the ideal is to rent a house for a year with the option of purchase if

you can. Anyone who decides to settle on the Island has first to settle on the part he prefers. This we did by getting into the car and exploring the whole place thoroughly. Having settled this point you have then to make up your mind whether you will buy land, cleared or uncleared, and build a house on it and make a garden or buy a ready-made proposition as I have done. I went into the money side of this pretty carefully and there is not a great deal in it but if you start from uncleared land it will take you about three years to get it looking like a home. Whatever you do, don't be in a hurry and buy the first charming place you see in June—there is also December to consider, and don't buy a bigger house than you can manage.

As regards other expenses: income-tax is levied by both the Dominion and the Province. I do not propose to give details as they would be too complicated but for incomes in our group a rough working rule would be that the tax will amount to six per cent of gross income or, say, 1*s.* 3*d.* in the pound. A very important point is that all Indian pensions paid by the India Office are paid free of British income-tax and pay the Canadian tax only; this does not apply to British Service pensions and those of R. N. officers which are liable to full British tax at source of payment and again here in Canada on the remainder. A rebate of the major part of the Canadian tax is admissible.

I have a Ford V-8 which cost me £230; the tax on this is £4/10 a year, insurance £7, petrol 1*s.* 2½*d.* a gallon. As regards the other necessities of life, Scotch Whiskey costs 13*s.* a bottle and Canadian rye 9*s.*; cigarettes 4*s.* a hundred. Alcohol is a Government monopoly; you have to get what I call a drinker's license which costs 1*s.*; you then go to the Government Liquor Store and buy as much as you want but you cannot get a drink in a hotel except in a special part of it called a beer parlour and there you can only get beer which is neither cheap nor good. We brew our own, most successfully. What one might call local produce such as milk, butter, fruit, eggs, fish, beef, mutton, and vegetables are absolutely first-class, better than I have had anywhere, and on the whole, cheap, some very cheap. Groceries on the whole are cheaper than in England. Imported articles are definitely dear: Canada has a pretty stiff tariff and there is a local sales tax everywhere. On the other hand "settlers' effects" which you bring with you or which follow you within a reasonable period are duty-free. This includes all your furniture, glass, cutlery, china, linen, carpets, pictures, guns, fishing tackle, camp kit, car if you like, and of course personal clothing It pays one to bring all one's

old clothes; for one thing you never wear anything else. My wife says this remark applies to both sexes.

If your wife has read as far as this she will be saying, "All very well for this old General with his big pension and his jewel of a Chinaman, but what about poor little me?" Well, Memsahib, it is like this; you get what you pay for here as everywhere else. The Chinaman is the most expensive proposition, and I consider the best. You can have a Canadian girl who will live in the house and requires a bedroom; your Chinaman lives in a shack in the garden. She is quite good and will teach you all you want to know about local housekeeping though you may be a bit worried at times at the hours she gets up and goes to bed. She will cost you £4 to £5 a month. You can have a woman who comes in and works anything from half a day a week upwards; standard rate is 1*s.* an hour. You can in a labour-saving house run by electricity do everything yourselves, but I do not advise this until you know the ropes and unless both the people involved are willing to take a fair share of the work. One thing you can be sure of; you can always get domestic help of some kind or another, the kind you get depends on two things; one is what you can pay, the other is the treatment you give to it.

As far as I am aware most Dominions and Colonies infer, if they do not make a definite statement, that the pensioner can at least augment his income by such means as fox farming, mink breeding, bulb growing, dairy farming and so on. You should be under no delusions about this; these are all highly specialised industries requiring a long training and a very considerable amount of capital, while even for the expert it is not always easy to show a profit. A good many keep a couple of cows and some chickens and grow their own vegetables. Comparatively harmless amusements these, but I fancy if our old friend the C. M. A. made a check of their accounts he would find that their milk, butter and eggs cost a good deal more than if they had been bought in the local market. In any case livestock of any kind is a tie; you or your lady want to run in to Victoria or over to Vancouver for a week-end; who is then to provide the nourishment and other amenities which the animals demand? Even the ordinary flower garden in a dry summer cannot be left very long. The gardening is a great joy; the soil is kind and things do well. I have the south wall of my garage covered with peaches and my neighbour next door has more grapes, also grown in the open, than he knows what to do with.

The mention of gardening leads one to say something about the climate, the two I know best are the east coast of Scotland and the north of India and I am putting it mildly when I say that it is a long way ahead of either. I think the best description is a very much improved south of England. One's first year in any place is always unusual according to the local inhabitants and this was no exception; it went up to 95°F. in July and down to 16°F. in December. It gets quite hot in summer, but you always want a blanket at night. So far this winter I have not exceeded two blankets and an eiderdown. To-day we had a letter from a friend in Edinburgh where I shivered for six winters as a boy, commiserating with us on the ghastly time we must be having. When her letter arrived at 3 p.m. on January 18th, I was sitting in my shirt sleeves on the end of the jetty watching the canvasback in the calm and sunlit lake. The lady forgot that we live on the pacific coast. A few weeks ago it was 48°F. here and at Edmonton across the Rockies it was 48° below zero. As a matter of fact, we have had two light falls of snow and ten days' quite good skating before Christmas. Some winters the snowfall is quite heavy.

Everyone who has lived a long time in the tropics misses the sun terribly at Home—at least I do. You do not feel that disability in British Columbia; I think that is the salient point of the climate; it is sunny not only in summer but in winter too. The average rainfall is about thirty inches.

I said that the man who would be happy here should be a shikari; better still, a fisherman. So I had better give you some of my personal experiences. I had not nearly enough time to fish last year—what with buying a house and furnishing—all sorts of things interfered with this really serious job. This will be remedied in 1939. First of all, if you are keen you can actually fish all the year round either in the sea or in fresh water. Secondly, you have to unlearn a great deal of what you did before and start afresh. For instance you go up to Cowichan lake to get some trout; by far the most successful method is to troll a seven-inch spoon with a worm dangling behind it. You then go down to Cowichan Bay to get a salmon in the sea, here really the only way for the Coho salmon is a fly either cast or trolled.

I have been disappointed in the river fishing on the whole, but then I have only tried the Cowichan and it is hard fished. You see the most wonderful looking water and fish it carefully without a rise; you go to the same place another evening and get three or four good fish. The explanation is that most of the river trout have acquired a sea-going habit and come in in definite

runs, and to do well you must hit off a run. Dry fly is not much good as a rule; the fish are largely minnow feeders and it is like fishing the Lower Sind for instance. I have had a lot of blank days and some marvellous ones to compensate. The first time I fished the river I got three rainbow 16½-lbs. In July I went with Colonel Slater, late of the Burma Police, to a lake in the centre of the Island; quite a trek by boat and pack horse. We camped out at the mouth of a big creek where it entered the lake. I got sick of catching trout on the fly at this place; there was a regular morning and evening rise lasting about two hours, nice fish, say, from ½-lb. to 1½-lb. They took a dry sedge here too. In September I went with another friend two hundred miles north by car, coasting steamer, and rowboat and camped in a deserted shack at the mouth of a large river and fished the tidal water for Tyee salmon. This turned out to be the best fishing I have ever had. We got eighteen fish in a week weighing 727 lbs. The best fish weighed 50 lbs. On the best day we got six fish weighing 242 lb. in all. I should hesitate to say how big some of the fresh-run fish were which we saw jumping, but 80-lb. is quite safe.

The results of these two trips really gave me the clue to success in sport here: you must get off the beaten track. I won't say that everyone fishes, but the inhabitants are a very keen and sporting lot and any available water near Victoria or Duncan is pretty hard fished. We are lucky in being only a few miles away from Cowichan Bay; there is a good run of Coho salmon every autumn lasting about two months. These are most sporting fish running from 8 to 15-lb. or more. They take a fly freely in salt water and play magnificently. This was a bad year and I was unlucky, and never got more than two in a day: but I saw bags of six to nine often. One ought to get between thirty and fifty fish in a good season. I am afraid I have been lazy about the shooting, having done so much in the past. I went to one party of six guns, five Labradors and one beater. We got eighteen head including twelve cock pheasants: quite good fun. All the shooting practically is on private land. You shoot your own and your friends' land and form little syndicates which are very cheap. There is quite a big stock of pheasant and quail on my small bit and I get the odd mallard and teal on the lake. There is just enough game to make it worth while to go for a walk with the dog; good fun for the dog anyhow.

You can play any game you like. We have a good little nine-hole golf course—£6 a year—and lots of tennis and badminton. If you feel that way you can even play polo; a pony will cost you

£15—20 and its keep some £3 a month. The best, in fact the star performer at the polo club, is a young friend of mine who drives a truck for a living. He drives it most furiously.

These remarks seem very disjointed when I read them over; but I hope that they give some sort of a picture of the country and what it has to offer and what it lacks. It is unconventional, friendly and democratic. This part of it is full of the most charming people from all over the Empire who have tried life here and found it good. Their regulation costume is a pair of old flannel bags and a tennis shirt, and they do not dress for dinner except on Christmas Day. It is famous all over North America as the place where old gentlemen in plus-fours take off their hats in the street and call each other "Sir." If you have enough to buy and furnish a house and an income of say £700 a year you will have a grand life. If you have more, it will be grander still. Lastly, if you think seriously of settling on the Island, come Home this way on your next leave; your fare will be about £50 more than a return from Bombay to London. Hire a car in Victoria for a couple of months; put your fishing rods and golf clubs in it; and study conditions for yourself. You can be assured of good weather from May to October.

I should be only too pleased to reply to any inquiries about Vancouver Island addressed to me at Duncan R. M. D. 1, Vancouver Island, British Columbia, Canada.

HIS EXCELLENCY THE COMMANDER-IN-CHIEF'S BROADCAST ON MILITARY DESPATCH No. 5—

(THE CHATFIELD REPORT)

All of you who are listening are of course fully aware of the grave crisis which we have now been called upon to face. My object in speaking to you to-night is not to attempt to make any forecast of the course of events in the future, but to give you some idea of the way in which we, here, in India, have been preparing to take our part in any eventuality that may arise.

Most of you will have heard of the unprecedented gift which His Majesty's Government are making to India in order to help us to re-equip and reorganise her defence forces in the light of modern technical developments in warfare. The details are given in Military Despatch No. 5, addressed to the Governor-General by the Secretary of State for India and this despatch has already been published in the press. In brief, in order to bring our forces up to date and to make them capable of playing their part efficiently, we are receiving a free gift of Rs. $33\frac{1}{4}$ crores and the remaining Rs. $11\frac{1}{4}$ crores required for our programme are being lent to us free of interest for the next five years.

This evening, in my capacity as Commander-in-Chief of the Defence Forces in India, I am speaking to you in order to explain and expand certain points which were dealt with in the necessarily brief and formal terms of the despatch. First and foremost, I wish to make it clear that I, as Commander-in-Chief, was closely associated throughout with all the work of Lord Chatfield's Committee as expressed in the despatch published and that I entirely agree with the proposals it contains, which have now been accepted by both the governments concerned. I am convinced that the implementation of these proposals will put the defence of India on a more satisfactory basis. The enormous cost of modern armaments has made it quite impossible for a poor country like India fully to keep pace with wealthier nations. It is, of course, obvious that the provision of a navy capable of shouldering the entire burden of India's seaward defences has always been beyond our means. This applies equally to the provision of a large air force. But until comparatively recently we were able to stand on our own legs as far as the army was concerned, and I can say that

the army in India was second to none in personnel and training. Post-war developments, however, have vastly increased the expenditure necessary to keep land forces up to date, and an army in the present year, if it is to be equipped up to modern standards, is far more expensive than the army of 1914. In fact it is not too much to say that India would not have been able to organise her defences, either on land or sea or in the air, to meet the dangers which the future may well bring forth had she only her own resources in money and industry upon which to rely.

I am aware that there are many in India who have been asking whether, in view of the trend of the world situation during the past year, those responsible for the defence of India were going to continue in apparent unconcern to watch the portents of the gathering storm, silent as to how they and the peoples of India must act if it should break. The best answer to that question is the announcement on which I am now speaking.

There are also those who, knowing the great services which India rendered to the cause of freedom and civilisation in the last war, are anxious to be told what India might have to do were war to come again. It is right that the people of India should know the answer to this question in so far as it can be given without damage to the public interest. Those who remember the Great War of 1914—18 know that though India's forces served beyond the borders of India, in Iraq and Africa and even in Europe, India itself was far from the seat of war and was never directly threatened. In existing conditions it would be clearly unwise to assume a continuance of this immunity. Look Eastwards and think of what would happen to India if Malaya and its great fortress of Singapore were to fall into the hands of an enemy. The British fleet would thereby lose its great base in the East and the whole Eastern coastline of India from Calcutta to Madras would become liable to raid and bombardment by sea and air. The loss of Malaya might well also mean a serious threat to Burma. Napoleon once said when he occupied the Low Countries that he had in Antwerp a pistol pointed at the heart of England. Burma, in hostile hands, would be a pistol pointed at the heart of Bengal. Look Westwards, to the Red Sea and Egypt. So long as Egypt, our ally, is free and independent and able with our help to check the movements of a hostile power, the Indian Ocean and the shores of India are likely to remain immune from

attack from that direction. In other words, it may be said that it is vital to the interests of India that Egypt and Aden should never fall into hostile hands. In the conditions of the world situation as it has developed in recent years, the places which I have named have become of the first importance to the defence of India and may be considered to be her outposts. Eastwards we have Singapore, Malaya and Burma; Westwards, Egypt, Aden and the lands of the Persian Gulf. If these were to be lost to India's friends, India would be directly threatened. Happily this has been realised, and as we have made preparations in time there is, humanly speaking, little danger of their loss, especially as we can count upon the fullest and most whole-hearted help from our allies—Turkey, Egypt and Iraq. If India were to stand alone, she would undoubtedly be in imminent danger. But India does not stand alone. In all the places from which her security may be menaced, there are British garrisons and in Egypt there is also the Egyptian Army. It must, however, be remembered that events in Europe may make a very heavy call on the sea, air and land forces of Great Britain, and moreover that sea and air communications may become unsafe for some time, in which case the arrival of reinforcements from the United Kingdom to garrisons east of Suez might be considerably delayed. In that case the country from which aid to the garrisons I have mentioned can best and most speedily come, is India. In India's own interests, therefore, as well as in common loyalty to the common cause, India must look this real problem of external defence squarely in the face and must acknowledge in the words of Military Despatch No. 5 "that her responsibility cannot in her own interests be safely limited to the local defence of her land frontiers and coasts."

What will external defence entail? It will entail the maintenance in India, in peace, of a part of India's defence forces comprising both British and Indian units in instant readiness to reinforce the garrisons in those strategic positions overseas which are vital to India's external defence. The nature and size of these forces are determined in joint consultation between His Majesty's Government and the Government of India. According to present plans, they will represent in numbers about one-tenth of the forces maintained in India for the defence of her frontiers and coasts and for the maintenance of internal tranquillity. It stands to reason that if these forces are to be fit to fight alongside British

Forces and to be prepared to resist the attacks of the troops of great military powers, they must in every respect be fit for war under modern conditions, ready in fact to meet and defeat the most powerful mechanised forces, tanks, aircraft, gas and hostile infantry heavily armed with modern light machine-guns and possessed of a high degree of mobility. We can no longer, therefore, be content with an unmodernised army for India. Indian troops, so far as their quality is concerned, need not fear comparison with the troops of any country in the world. It is only fair, however, to our officers and men, that they should have the fullest use of all the new weapons which modern science has devised and also of motor transport and wireless communications which have come into general use in modern armies. It was to help towards the provision of these new weapons and equipment that the British Government increased her annual contribution to India's defence budget by half a million pounds and, in addition, gave us a capital sum of five million pounds. Much of these five millions has already been spent on re-equipping the army and air units detailed for the tasks of external defence. It is due to that money that the contingents from India which have just been sent to reinforce Singapore, Aden and Egypt, are far better equipped for modern warfare than we could have hoped for when we had to rely entirely upon our own resources. Incidentally, I can tell you now that India's prompt reinforcement of the strategic positions vital to her defences, has gone far towards increasing the sense of security both in Egypt and Malaya.

It is possible that some of you who have followed my arguments so far may be thinking to yourselves "Good; if India and Great Britian can prevent our enemies from occupying Singapore, Aden and Egypt, then India is safe, and needs no other defence forces." This, unfortunately, is not correct. The new problems which I have described do not cancel out the old needs; India still requires land, sea and air forces for the following tasks:

(1) the defence of her land frontiers;

(2) the defence of her ports and harbours and all the cities and industrial establishments on and near her coasts;

(3) the preservation of internal security;

(4) the provision of a reserve to meet the many unforeseen emergencies which are likely to occur in a world as unsettled as the one we live in.

Moreover, just as the forces for overseas external defence require to be equipped with modern means of warfare, so the forces for the local defence of India can no longer be regarded as efficient if they rely upon the comparatively simple weapons, and on the horse and mule for movement and transport. In fact it would obviously be absurd to have one-tenth of the Army in India organised on a highly modern basis, while the remainder of the forces, both Indian and British, were not similarly equipped and trained. Nothing is more costly to a nation than the maintenance of defence forces which are not on the same level of modernised efficiency as those of their possible adversaries. In peace they are almost as expensive to keep up as highly modernised forces and in war they lead to unnecessary loss and perhaps ruin. For the last two years and more, I have recognised that the forces for the defence of India must be modernised; that we needed new ships for ports and coastal defence and for keeping the approaches to our harbours clear of enemy submarines and mine-layers; that our air-craft must be replaced by new and efficient machines and that the weapons of the Army were insufficient in numbers and becoming out of date. Further, I have realised that in many parts of the East in which we might be called upon to operate, the Army would gain in that striking power and speed and range of movement which makes for success, if the cavalry, British and Indian, were to be mechanised and armoured and the infantry to have motor transport instead of the slow-moving and vulnerable mule. Up till now the main difficulty has been lack of money. Modernisation, either in business or in defence services, is very expensive and needs a large supply of capital. It was easy enough to decide what ought to be done to modernise India's defence forces and comparatively easy to work out how much that would cost, but until this agreement between the Government of India and His Majesty's Government was arrived at, after a close and detailed study of our problems and needs on the spot, there seemed to be little hope of getting the money required to give effect to our programme of modernisation. This decision of His Majesty's Government, virtually to pay for the whole reorganisation and rearmament of the defence forces in India in the light of modern military needs and of the international situation, is an immense relief to me and to all concerned with the defence of this country. We can now set to work to complete the reorganisation of our

land, air and naval forces in order to fit them in every respect for any emergency and to meet any enemy. We have indeed already made substantial progress in this direction in all three services. The Air Force in particular now possess a complement of machines of the most modern types.

In tackling this problem we had to decide to what extent we can rely on our own resources and what will have to be provided from elsewhere. India's greatest asset is a large supply of the finest types of fighting men. India's weaknesses are a low national income and up to the present limited industrial development, incapable as yet of supplying all the technical equipment of a modern army. Without proper equipment we cannot assume or use the man-power which we possess. Moreover, so costly are modern armaments, that unless our annual resources for the maintenance of our new model army were to be very largely increased, the modernised army, though it gains greatly in efficiency for war, will probably be smaller in numbers of units and men than its predecessor. History has, however, amply shown that victory is not the prerogative of a large organisation, swollen with ill-armed soldiery, but rather of small well-armed mobile armies, modern for their period. This is even more true to-day than it was at any time before, and nowadays large ill-equipped armies are nothing more than sheep for slaughter. Realising the possibility of reduction, consequent upon the great improvements and striking power conferred by modernisation, His Majesty's Government have practically completed the process of withdrawing from India, and thus assuming financial responsibility for, the equivalent of a division of British troops. It may also become necessary, hereafter, in order to keep within the limits of the money available for defence, to make some reduction in the numbers of Indian troops maintained *in peace*. This in any case will be proportionately much smaller and will of course not be done yet.

And now a word on the subject of industry; as the despatch says, it has been accepted that after the process of modernisation is complete, India should be in all major respects self-sufficient in munitions in time of war. In the present state of industrial development, the first reliance must obviously be placed on the expansion of government factories, which is already in hand, but the utmost encouragement will be given to indigenous industry and it is up to industry to take advantage of this new development.

India is a military country and I am a soldier. It will, therefore, perhaps not be amiss if I give you some personal impressions of what the effect of modernisation will be on the personnel of the future Army in India. They are not just guess work but based on what has already been done. With new scientific weapons and with modern vehicles, there will inevitably come new ideas and a new outlook. Modernisation is likely to give increased impetus to the already high rate of education in the Indian Army and when nearly every soldier on discharge returns to his home with a knowledge of motor cars and machinery, there may well be a perceptible effect upon the age-old methods of agriculture and ways of living. Modernisation in the Army may therefore have a considerable indirect effect upon the life of India. Many of those who hear me will regret the passing of the horse. No one regrets it more than myself, but as a soldier who knows the fate which awaits the horse in modern warfare, I rejoice for its sake, that one of the greatest and best of friends of man is in future to be spared the horrors of war.

Finally, I wish to remind you, that all connected with India's defence are addressing themselves to their utmost in the present grave emergency to meet all the dangers which India may be faced with. In the performance of this task we shall be immensely encouraged by the support, sympathy and understanding of people of good will and intelligence who realise the dangers which threaten India in the circumstances of to-day and have some understanding of what the defence forces must do to meet them. I would also recommend them carefully to read and re-read the words of Military Despatch No. 5 in the light of what I have been saying.

In wishing you "good night," I can assure you with the utmost confidence, that the modernised forces in India will serve you as nobly in the present emergency and in the future as their predecessors have done in the past. I cannot say more than that.

MILITARY DISPATCH No. 5

This despatch from the Secretary of State for India to His Excellency the Viceroy embodies the conclusions reached by His Majesty's Government on the recommendations submitted by the committee under the chairmanship of Lord Chatfield.

The Government of India have accepted the conclusions and have expressed their appreciation of the very substantial contribution which His Majesty's Government at a time of great financial stress have decided to make to the capital cost of re-equipment and reorganisation.

The despatch is as follows:

* * * *

On the 13th September 1938, an announcement was made on behalf of His Majesty's Government in the following terms:

"As was indicated by the Secretary of State for War in his speech on the Army Estimates on the 10th March of this year the Prime Minister at that time authorised the initiation of discussions regarding the role of land and air forces in India in relation to the defence problems of India and the Empire.

"Both the military and financial aspects of this question have been considered in detail. The outcome of these discussions at the stage so far reached has recently been considered by His Majesty's Government.

"The need for early action to place the defence organisation of India on a more satisfactory basis is accepted. It has not been possible in the time available to reach agreement on all matters which have presented themselves for consideration in the course of these discussions. But definite progress has been made, and in the light of this progress, an offer has been made by His Majesty's Government in the United Kingdom, subject to approval of Parliament, to increase by £500,000 as from 1st April next, the annual grant of £1,500,000 which has been paid to the Government of India since 1933 in aid of Indian defence expenditure in accordance with the recommendation of the Garran Tribunal. In addition, His Majesty's Government in the United Kingdom propose to ask Parliament to authorise the offer to the Government of India of a capital grant up to £5,000,000 for the re-equipment of certain British and Indian units in India, and in addition, to authorise

the provision of aircraft for the re-equipment of certain squadrons of the Royal Air Force. The precise scope and cost of these proposals have not yet been determined in detail. Further, it has been agreed that four British battalions should be transferred from the Indian to the Imperial establishment; three battalions will be transferred at once and the forth will follow as soon as can be conveniently arranged. Finally, in connection with the discussions which have taken place in London, the Government of India have suggested that His Majesty's Government should send out an expert body of enquiry to India, at the earliest opportunity, to investigate the military and financial aspects of the problems on the spot, and to submit a report before the discussions between the two Governments are carried to their conclusion. His Majesty's Government have accepted this suggestion and appointed an expert committee, with the following terms of reference:

> "Having regard to the increased cost of modern armaments, to the desirability of organising, equipping and maintaining the Forces in India in accordance with modern requirements, and to the limited resources available in India for defence expenditure, to examine and report, in the light of experience gained in executing the British rearmament programme, how these resources can be used to the best advantage, and to make recommendations."

"The expert committee, with which the Defence Department of the Government of India will be associated, will be presided over by Admiral of the Fleet Lord Chatfield. They will leave England during October, and it is hoped that they will be able to report early in 1939."

* * * *

The Report of Lord Chatfield's Committee was presented to His Majesty's Government on the 6th February 1939. His Majesty's Government have since been considering the Report in consultation with Your Excellency and have now arrived at certain conclusions upon it. The Report itself necessarily contains material which it would not be in the public interest to disclose, and it is not therefore intended to publish its text. I am, however, authorised to communicate herewith to Your Excellency for publication the substance of its main recommendations and of His Majesty's Government's conclusions thereon.

As Your Excellency is aware, Lord Chatfield's Committee maintained close and constant touch with the defence authorities in the course of their work in India, and the recommendations in the Report reflect in large measure their joint conclusions in so far as the technical aspects of the enquiry are concerned. At the same time the Committee took steps to ascertain the views of all sections of opinion, unofficial as well as official, with which they were able to establish contact, and they included in their survey of the problem various considerations that were put before them as a result of this procedure.

The Committee's terms of reference allude to "the desirability of organising, equipping and maintaining the Forces in India in accordance with modern requirements." The term "modern requirements" was, of course, intended to relate to the defence requirements of India in modern circumstances, and the Committee have so interpreted it in making their recommendations. These contain proposals affecting the Army, Air and Naval Forces maintained by Your Excellency's Government, as summarised below and take fully into account the great changes that international developments have brought about in India's defence problem.

As regards the Army, the Committee gave consideration to the suggestion that it might be simpler, cheaper and more effective to maintain separate specialised forces for such purposes as frontier watch and ward and internal security. They concluded, however, that for many reasons the suggestion cannot be supported. They noted that the personnel of separate specialised Forces would not be interchangeable, and consequently great practical difficulties would be met with as regards the reliefs and the training of units in the various components, while the constitution of Forces of which the component parts cannot readily be interchanged is in itself unsound from the point of view of elasticity and economy of force. Moreover, such Forces would almost certainly prove more costly than general purpose troops. Specialisation of this nature would involve the conversion of a large part, if not the whole of the Regular Indian Army, at any rate, into groups of forces which would be incapable of operating anywhere outside their local spheres. On the other hand the British Units which now form an intergral part of the Army Forces in India must in any case be maintained in such a state that they are readily

interchangeable with units on the Home Establishment and it would clearly be detrimental both to efficiency and morale if any portion of the Indian Army were organised and equipped on a markedly lower basis. The Committee concluded that in the interests of Indian defence the whole of the Army Forces in India should be modernised with only such minor variations as would not effect the general level of efficiency.

They therefore recommended a thorough-going scheme for the re-equipment of all branches of the Service, particulars of which are given in the Appendix to this dispatch. It will be noted that one of the most important features of the modernisation proposals is the mechanisation of the Cavalry and of the first line transport of a large portion of the Infantry with the object of greatly increasing the mobility of the units.

With the increased efficiency and mobility afforded by modernisation it becomes possible to provide an equal measure of security with a smaller number of troops, though it has to be recognised that the maintenance costs of a modernised unit are necessarily higher. The Committee carefully considered these factors in relation to the defence requirements of India and to the need for keeping the maintenance costs of the Army within the compass of what India can afford. The financial effects of their recommendations are dealt with later.

The actual reductions as regards British units are as follows. The Committee noted that since the 1st July 1938 one British Cavalry Regiment and four British Infantry Battalions had already been withdrawn or earmarked for withdrawal from India. In addition to this, their proposals involve the withdrawal of one Regiment of Field Artillery, one Regiment of Medium Artillery, and three R. H. A. Batteries, and of one Cavalry Regiment (since increased to two in consultation with Your Excellency) and two Battalions of Infantry; and effect is already being given to these further withdrawals. The total reduction of British troops as measured with their establishment on the 1st July 1938 is approximately 25 per cent.

For the same reasons a reduction in the number of Indian units will also be involved. It has to be remembered that while the reduction of British units on the Indian Establishment implies their transfer to the Home Establishment and consequently their retention as a part of the available combatant forces, the reduction

of Indian units must be absolute except in so far as they can be employed, at the cost of other than Indian revenues, in overseas stations. In present world circumstances, however, it would clearly be imprudent to lay down any hard and fast programme involving an absolute reduction of the available combatant forces; and time and occasion for any actual reduction will have to be fully considered hereafter. In any event such reduction would be proportionately much less than that of British troops.

As regards the Air and Naval Forces, the Committee made proposals for the re-equipment of the Air Squadrons maintained in India and for the re-equipment of the Royal Indian Navy. In the case of the Royal Air Force, as stated in the announcement of the 13th September, 1938, quoted in the first paragraph of this despatch, His Majesty's Government had already agreed to make a capital grant for the re-equipment of certain squadrons. A sum of approximately £1,700,000 has been provided for this purpose and the re-equipment of four Bomber squadrons is now in progress. The proposals of the Committee include the complete re-equipment of the remainder of the Royal Air Force squadrons in India (as shown in the Appendix) and measures to bring the transport and stocks of stores for war requirements up to the requisite standard.

With regard to the Royal Indian Navy the proposals are related to the agreement reached between His Majesty's Government and Your Excellency's Government in 1937 and announced in the Communique dated the 26th February 1938. They include the provision of four new escort vessels making an eventual total force of six modern vessels together with adequate measures for the local naval defence of India.

In addition, proposals are made to modernise the coast defences at the principal ports.

The Committee further recommended a scheme for reorganising and where necessary expanding the Ordnance Factories in India which supply all three Services. While recognising that the greater part of the initial equipment required under their modernisation plans would have to be provided from sources outside India, they accepted the principle that thereafter India should as far as possible be made in all major respects self-sufficient in munitions in time of war. They gave full weight to the possibility of drawing on the resources of private enterprise in India in

this connection. They concluded, however, that in the present state of industrial development it is necessary to place first reliance on the Government Factories.

After carefully examining the Committee's proposals, His Majesty's Government consider that they should be accepted subject only to a few minor modifications and to the further consideration of certain aspects, which however do not materially affect the Committee's scheme as a whole. In reaching this conclusion they have taken full account of the heavy capital cost involved in the modernisation proposals. The Committee, working on material made available to them in India, estimated the total net capital cost at some Rs. 45 crores or £34·33 millions. The Committee made it clear that in their view the funds required to meet this capital expenditure could not be found out of the resources available in India. His Majesty's Government have accepted this conclusion, but are no less impressed than the Committee with the need for modernising the Forces in India. They are, therefore, prepared to adopt a suggestion made by the Committee, and to seek the authority of Parliament to provide the sum of £34·33 milllions from the Home Exchequer. This sum would include the capital grant of £5 millions and the cost of re-equipping the Air Force Squadrons referred to in the Communique of the 13th September 1938. The Committee estimated that a period of five years would be required for the completion of the modernisation plan (except that a some-what longer period will be needed in the case of the Royal Indian Navy); and the provision of the total capital sum would accordingly be spread over this period. Of the total amount, three-quarters would be provided as a free gift while one-quarter would be advanced by way of a loan. The interest on this portion, however, would be entirely remitted for the first five years; thereafter interest would become payable together with instalments of capital.

In estimating India's defence requirements, the Committee had to consider how far the prevailing conception as regards India's liability for defence can be held valid in the light of modern conditions. They took note of the principle stated in the Report of the Garran Tribunal of 1933 that the broad lines of division between Indian and Imperial responsibility for defence should be that India assumed responsibility for the "minor danger" of the maintenance of internal security and protection of

her frontiers, and that Great Britain assumed responsibility for the "major danger" of an attack by a great power upon India, or upon the Empire through India. They observed, however, that this principle was formulated in the years immediately following the Great War and was re-affirmed by the Garran Tribunal. Since then, however, developments have brought into far greater prominence India's potential vulnerability to attack in other forms than those envisaged when the principle was first laid down. Such attacks, if they should ever mature, would so vitally affect India's own well-being that they would demand her immediate co-operation in effective measures for her defence. In such cases India's defence would clearly be most effectively and economically assured by co-operation in the defence of points outside India which are strategically essential to her security. The agreement of 1937 with regard to the Royal Indian Navy, which embodied a policy that had already been made clear when the Royal Indian Navy was created as a combatant force, contained in itself a recognition of the fact that India is directly interested in defence measures extending beyond her local frontiers. Lord Chatfield's Committee drawn inevitably to the same conclusion, have recommended as a general principle that the Forces maintained in India should be adequate not merely for the narrower purposes of purely local defence, but also to assist in maintaining what they describe as "India's external security"; and further that India should acknowledge that her responsibility cannot in her own interests be safely limited to the local defence of her land frontiers and coasts.

It was fully appreciated by them that the Forces to be maintained by India could only bear a small share in these wider responsibilities and that she could not necessarily bear in full their cost. Further, they make it clear that any such Forces as are maintained to meet the requirements of India's external security should form an integral part of the Forces in India as a whole; and that in accordance with the principles on which the relations between the Governments of Great Britain and of India have been based, the Government of India must be responsible for the administration of all the Armed Forces situated in India for the purpose of local and external defence and must, therefore, have full financial control over the expenditure necessary for their maintenance.

The governing principle advocated by the Committee is, in short, that India should bear some share in a joint responsibility for her external security. They conclude that if at any time there are forces held for the purposes covered by this joint responsibility, the British Government should make a recurring contribution towards their maintenance costs in such a way as would afford an equitable apportionment while reserving the Government of India's financial and administrative control over the whole of the Forces maintained by them. Taking all the factors into account, the Committee recommend that the contribution hitherto paid by the British Government in accordance with the Garran Award should be definitely raised by £500,000 and stabilised at the higher level of £2.000.000 a year to which it has been provisionally raised by His Majesty's Government. On this basis, the Committee estimated that, if the whole of the forces were organised and equipped on the scale proposed, the maintenance charges during the first five years would be within the level of the present provision for defence, provided that no material increases, which could not at that time be foreseen, should occur. The Committee hold that it would follow from their main principle that if Forces held in India for the purposes covered by the joint responsibility are used outside India in an emergency affecting India's external security, their ordinary maintenance charges should continue to be borne by India; in other words, that in such circumstances India should forbear to make a saving out of the fact that some part of her forces would in her own interests be employed beyond her geographical frontiers.

The scale of the Forces recommended by the Committee is intended to be adequate, though not more than adequate, to provide for India's purely local defence needs together with a margin available if need be for her external defence. As regards the Army, this margin will amount to approximately one-tenth of the Army Forces maintained in India. Being an integral part of the Army in India it will contain Indian as well as British units, and both alike will be so equipped as to be able to take part effectively in India's external defence. It will not in any sense be segregated from the rest of the Army Forces; and in normal times it will continue to discharge the functions assigned to those Forces as a whole. As a result of general modernisation, units will be readily interchangeable between what are termed

"external defence troops" and the remainder of the Army Forces; and the slight variations in equipment proposed for the former have been so designed as not to impede this process.

Here, as elsewhere, His Majesty's Government consider that the Committee made out a convincing case for their proposals. They have every hope that the principles advocated by the Committee will commend themselves to Your Excellency's Government and to all who are prepared to take a realistic view of India's defence requirements in modern circumstances; and they are confident that Your Excellency's Government will do all in their power to foster an informed appreciation of the necessities which India, like almost every other country in the world, must to-day be ready to face.

APPENDIX

Army

1. The basis of distribution of the Army in India will be:
   (*a*) Frontier Defence.
   (*b*) Internal Security.
   (*c*) Coast Defence.
   (*d*) General Reserve.
   (*e*) External Defence Troops.
2. Types of modernised units will be as follows:
   British and Indian Cavalry Light Tank Regiments—equipped with light tanks and armoured carriers for reconnaissance.
   Indian Cavalry Armoured Regiments—equipped with light tanks and armoured cars.
   Indian Cavalry Motor Regiments—provided with motor transport for conveyance of personnel who will normally operate on foot.
   British and Indian Field Artillery Regiments—all regiments are to be mechanised and in due course equipped with 25-pounder guns.
   Sappers and Miners units—with mechanised 1st line transport and mechanical power tools.
   British and Indian Infantry Battalions—armed with rifles, Brens and 2" mortars and fully mechanised 1st line transport.

Units on North Western Frontier will retain a certain proportion of pack mules.

Air Forces

3. The Air Forces in India will be re-equipped with modern aircraft as follows:

Bomber Squadrons—Blenheims.

Army Co-operation Squadrons—Lysanders.

Bomber Transport Squadrons—Valentias.

The Indian Air Force Squadron, at present being formed, is expected to be complete by the end of 1940.

Volunteer flights for coast defence duties will be raised at certain ports.

Royal Indian Navy

4. The following new vessels will be ordered:

(*a*) Four "Bittern" class escort vessels.

(*b*) Four "Mastiff" class trawlers.

The "Indus" and "Hindustan" will be re-equipped with new armament.

Ordnance Factories

5. In order to make India as far as possible self-sufficient in the supply of munitions in war the existing Ordnance Factories will be expanded or reconstructed. Where necessary entirely new factories will be built.

REVIEWS

WHEN I WAS A BOY

By General Sir Ian Hamilton

(*Faber and Faber, Ltd.*: 18*s*.)

These are Sir Ian Hamilton's reminiscences from his earliest years until, as a young officer of some two years' service, he transferred from the Suffolk Regiment to the Gordon Highlanders.

Those who are entertained by a description of the minor details of the early life of distinguished personages, or by an exhaustive catalogue of their relatives even unto cousins twelve times removed, or by accounts of distinguished friends, will find much to interest them in "When I Was a Boy." Others, less inclined to "bless the squire and his relations," may be irritated by the somewhat exasperating complacency which permeates the book. The author makes it so very plain that these modern decadent days compare poorly with the robuster ages of the mid-Victorian era, and that the young men and women of to-day are but shadowy counterparts of the saints and giants of old.

From another point of view, namely, as a psychological study, the book is of interest, for it is a typical and candid description of the formative years and character building processes which went to produce the majority of those who guided us into and through the Great War.

Sir Ian Hamilton was born in 1853, eighty-six years ago. He goes at great length into details of his family. His father was Captain Christian Montieth Hamilton of the 92nd Gordon Highlanders, a unit which he afterwards commanded. His mother was a Miss Vereker, of the family of the Viscounts Gort. His grandmother was Christina Cameron, daughter of Henry Monteith of Carstairs. His early childhood was spent in Argyll, where his father rented a house, and is described in great detail. One cannot help being amazed at the range and minuteness of the author's memory of those distant days.

In 1863, at the age of ten, Ian Hamilton entered the highly select preparatory school of the Reverend Doctor R. S. Tabor at Cheam. The main function of this establishment was to prepare

the young of the best families for Eton. Here the atmosphere was that of misery and terrorism normally prevalent in schools at that time; on the part of the headmaster, a mixture of sadistic brutality and smug sanctimoniousness; on the part of the boys, continuous bullying. The curriculum consisted of the classics, pure and unalloyed, forcibly and ferociously injected.

In 1866 little Ian went on to Wellington, then just recently founded. We learn that he should have gone to Eton, together with the majority of his contemporaries at Cheam, but finance forbade. At Wellington, in accordance with tradition, he took great pains to avoid doing any work; until in 1870 he was brought up with a round turn at the prospect of having to obtain a competitive vacancy at Sandhurst. Purchase having just been abolished, competition was keen. He was bundled off to a crammer, took the examination, in which he had a stroke of luck, and much to his own and every one else's astonishment passed in well.

The book goes on to describe his year in Dresden, in the house of one General Dammers, prior to his entering Sandhurst. Here he was coached by the worthy Austrian and for the first time in his life saw work done gladly for the sake of the job and for pride of profession. There follows his time at Sandhurst, mostly devoted to horses and good cheer, and the account concludes with his short stay in the 12th Foot.

On turning the last page of this book a contemplative young man of modern times might pause to reflect on the diverse influences which condition the mentalities of succeeding generations. He might think how each generation has its own codes and standards; and he might wonder whether those of the present generation could possibly be more peculiar than those of the second half of the nineteenth century.

F.E.C.H.

"THE DEFENCE OF BRITAIN"

By Liddell Hart

(*Faber and Faber.* 12/6*d.*)

Published in July 1939, Liddell Hart's latest book comes at a time when it seems likely that events in Europe may shortly prove much of it to have been prophetic.

The most important part of the book is devoted to the reorganisation and reform of our defence forces which have taken place since Mr. Hore Belisha became War Minister. For the impetus for many of these reforms the author, it appears, was partly responsible; indeed, as shown by the various papers which he wrote both for *The Times* and for circulation in the War Office and from which he quotes, he was generally one lap ahead of the responsible authorities—military and civil. Of particular interest in this connection are his views—some of them expressed as long ago as 1937—on such questions as the redistribution of the Army, including the holding of an Imperial Reserve in India; the reorganisation of the Mobile Division to form two smaller ones; increase in weapon power accompanied by a reduction in man-power; smaller divisions; the concentration of all aspects of anti-aircraft defence under a single authority at the War Office; and reforms in the system of promotion with a general lowering of age limits.

As a background for his proposals the author recapitulates the various situations which have confronted the Democracies since 1919 and gives the British reactions to each from the standpoint of defence. Up to Munich, he thinks, there was no necessity to contemplate a direct reinforcement to France on land; all our efforts should have been directed to improving our sea and air resources. Since Munich, however, the defection of Czechoslovakia and the potential hostility of Spain may have rendered such support necessary, though he would still prefer that we should not commit ourselves in advance to sending more than armoured formations, holding that it might well be more profitable to use the bulk of our Expeditionary Force elsewhere.

Captain Liddell Hart contends that whilst the Great War showed the superiority of the defence over the attack, subsequent developments have, if anything, increased the disparity so that an attacker having a superiority in weapons of less than three to one cannot hope to succeed. He quotes figures to show that such an ascendancy is unlikely to be achieved by Britain and France on the Western Front and he argues that our correct policy—which he claims is also Britain's historical one—is to maintain an active defensive on land, allowing the enemy to wear himself out in costly attacks but taking every chance of a quick counter stroke with mobile and air forces, whilst relying for ultimate victory on economic pressure regarding which we still hold a strong hand.

A great point is made of the defence of Great Britain—not against invasion by land which is considered even less likely than formerly—but against air attack and the danger of the enemy dropping sabotage agents near vital centres. For anti-aircraft defence proper the author advocates a higher ratio of fighters to bombers, whilst to limit the inhumanity of air bombing he suggests the creation in every country of clearly marked demilitarised zones for the non-belligerent population.

The book ends with some interesting notes on training methods in war and two chapters on the expansion and reform of the Territorial Army.

The author has long been noted for his progressive and far-sighted thinking and vigorous writing on matters military. After reading this book most people will agree that he is continuing to run true to form.

C. J. G. D.

TRAINING, UMPIRING IN ATTACK AND DEFENCE, EXERCISES WITH AND WITHOUT TROOPS, ESSAYS, LECTURES

By A. Kearsey, D.S.O., O.B.E., *p.s.c.*

(*Gale and Polden, Ltd.* 2*s.* 6*d.*)

Most officers must be familiar with Lieutenant-Colonel Kearsey's short guides to knowledge. In this one the author writes from the point of view of a candidate for examination or an officer about to prepare lectures or exercises on training and tactical subjects. He has brought together in handy form information extracted from the regulations and manuals besides giving a number of hints and tips well known to officers of experience but not included in any official handbook.

The author has certainly succeeded in compressing a great number of academic facts and precepts into a small compass. His book provides quite a useful *aide memoire* for an officer preparing a lecture or about to run an exercise. An officer studying for an examination might also find it of value; but it is no substitute for the practical training which a young officer should receive from his seniors and it must be used with intelligence. The

danger is that the young student may try to use the book as a substitute for the manuals and as a provider of a stock answer for every tactical problem. Another danger is that things change so fast nowadays that portions of a book of this kind are almost certain to be behind the times almost as soon as the book is published. This has happened in this instance, especially in regard to the chapter on defence, and the remarks about the use of casualty screens on training.

F.E.C.H.

"THE ROYAL DECCAN HORSE IN THE GREAT WAR"

By Lieutenant-Colonel E. Tennant

(*Gale and Polden*. 10*s*. 6*d*.)

This attractively bound and well printed history of the Royal Deccan Horse and the 29th Lancers (Deccan Horse) during the Great War is a worthy record of two famous regiments. Both regiments served in France and Palestine, so their history includes valuable material for anyone who is interested in horsed cavalry in modern warfare, either in European or Eastern conditions. The book has a most interesting foreword by Brigadier-General Macquoid. He gives an account of the types of Deccan soldiers of which the regiments were originally formed. Besides the usual appendices which give the names of officers who served with the regiments and similar subjects of regimental interest, there are two appendices of general interest. One is a clear description of the old silladar system, and the other expresses the author's views on the value of horsed cavalry in modern warfare.

The book contains good maps and pictures. It has steered a fair course between the double dangers of being a "Parish Magazine" and a "History of the Whole Army;" it is, therefore, readable both to members of the two regiments and to the general military reader.

G. T. W.

LORD KITCHENER

By Lieut.-Colonel H. de Watteville.

(*Blackie and Son, Ltd.* 5*s.*)

One opens this volume hoping that it will throw new light on the enigma of the man to whom Britain and the Empire so instinctively looked for leadership when the storm of war burst upon them twenty-five years ago. So many other books have already appeared in praise of him as a born leader of men and an astute administrator, or to tear him to pieces as an intolerant, inhuman and narrow-minded man who rose to positions too high for his ability, that one hoped to see a book full of human glimpses into his character, his letters and his words, and to read expressions of opinion about him from those who worked closest with him and knew him best. In this respect the book is somewhat of a disappointment. Instead, it gives a concise, well-written, historical biography dealing with events rather than with personalities, and leaving one to deduce the great man's character and shortcomings from the facts.

The book deals mainly with Kitchener's earlier service in Egypt, South Africa and India, and the steps by which he came to stand out head and shoulders in the popular imagination as fitted to be Britain's military leader in 1914. It shows him as original but self-willed, the Cat that Walked by Himself; not as inhuman as many have believed, but lonely and aloof as a result of shyness and long periods of service in the wide spaces of the Middle East. It shows him as a far-sighted thinker, ready to back his own convictions against all others, and as a great commander and leader of men. It shows him too as a great administrator who seldom came short of success so long as his immediate task was not too great to be centralised in his own person and judgment.

The author only gives forty pages to the War period from 1914 to the June day in 1916 when H. M. S. Hampshire sank with K. of K. on his way to Archangel, at the Tsar's invitation, to suggest means of reorganising the arming and supplying of the Russian armies. This brevity is only right in view of the number of authors who have already dealt with this last phase when the task of Secretary of State was at times too great for the over-centralising Field-Marshal.

It leaves us with a clearly-defined and unbiased picture of a great man and a great soldier, of whom, soon after his death, one of the bitterest critics of this last phase could only say: "A great figure gone. The services which he rendered in the early days of the War cannot be forgotten. They transcend those of all the lesser men who were his colleagues, some few of whom envied his popularity . . . . But there he was, towering above the others in character as in inches, by far the most popular man in the country to the end, and a firm rock which stood out amidst the raging tempest."

E. H. W. C.

NOTICE

LADY GROVER'S HOSPITAL FUND FOR OFFICERS' FAMILIES

SIR,

This Fund, which is advertised in the Navy, Army and Air Force Lists, offers most advantageous terms to serving and retired officers of the Defence Forces who wish to insure their wives, their families or their dependants against the nursing expenses of illness, and is deserving of support.

Benefits consist of grants paid to assist in defraying the actual cost of residence in a nursing home or hospital to a maximum of £5-5-0 a week and for a maximum period of six weeks in any calendar year; or, in the case of a nurse privately engaged, the actual fees up to £3-13-6 a week for a similar period. with the proviso that the first week's expense in any illness is not eligible for benefit.

Families and dependants, that is, possible beneficiaries, are defined as wives of officers, their sons up to 18 years of age and their daughters up to 21 years of age or marriage, whichever is first. Bachelor members may secure benefits for their mothers if dependent on them and for unmarried sisters. Widows of officers and unmarried daughters, over 21 years of age, may become members and be eligible for benefit.

Those eligible for membership are all commissioned officers of the Royal Navy, the Royal Marines, the Regular Army, the Royal Air Force, the Royal Indian Navy and the Ecclesiastical Establishments attached thereto. Subscriptions vary according to rank being either £1-11-6 or £1-7-6 annually. Widows and unmarried daughters of officers may also become members and the subscription in their case is either £1-1-0 or £1-5-0 annually according to whether the husband or father is, or has been, a member of the Fund, and to the time that has elapsed since his death in the case of widows, or of the age of daughters over 21 years.

Officers may, if they wish, become life members by paying a subscription varying from 25 to 15 guineas according to age.

The Committee are aware of the special conditions that exist in India with regard to the admittance of officers' dependants to Military Family Hospitals and of the necessity of engaging Minto nurses in such cases, and care is taken that no member shall be at a disadvantage because of such arrangements.

Finally members may draw benefits in any country of the British Empire, whether Dominion, Colony, Protectorate or Mandated Territory, and in the allied countries of Iraq and Egypt.

Full particulars with regard to the Fund, together with forms of application for entry and banker's order forms may be obtained by application to the Secretary, Lieut.-Colonel G. E. Smart, D.S.O., 1 Glazbury Road, London, W. 14.

Sole Official Agents for Advertisements in the British Isles, Gale & Polden Ltd., Ideal House, Argyll Street, Oxford Circus, London, W.1.
Telephone: Whitehall 4922.

United Service Institution of India

JANUARY, 1939

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I.—NEW MEMBERS

The following new members joined the Institution from 1st September 1938 to 30th November 1938:

Ordinary Members.

Major J. N. Phelps.
„ R. L. M. Rosenberg.
„ A. H. Scrivener.
Captain H. K. Gillson.
„ J. E. L. Morris.
„ J. W. Rawlins.
„ J. C. Richardson.
„ M. W. White.
„ P. R. Williams.
Lieut. R. J. V. Chetwynd-Palmer.
„ A. Clyde-Smith.
„ D. H. M. Gibson.
„ A. J. Hamilton.
„ H. R. Hugo.
„ A. R. Kemsley.
„ H. G. Lyons-Montgomery.
„ G. A. C. Maunsell.
„ M. St. J. Oswald.
„ R. M. Power.
„ S. K. Ray.
„ R. G. Wilson.
2/Lieut. D. R. Brown.
„ H. C. Butchard.

II.—CONTRIBUTIONS TO THE JOURNAL

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten, with double spacing between lines, on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 25 to Rs. 150 according to the value of the contribution.

With reference to Regulations for the Army in India, paragraph 333, and King's Regulations, paragraph 535, the Executive Committee of the Institution will take action, when necessary, to obtain the sanction of the Chief of the General

Staff to the publication of an article in the Journal of the United Service Institution.

The Committee reserve to themselves the right to omit or amend any matter which they consider objectionable. Articles are only accepted on these conditions.

III.—READING ROOM AND LIBRARY

(1) The library is only open to members, who are requested to look on books as not transferable to their friends.

Books are only issued on loan to members who are resident in India. Members borrowing books from the library in person must make the necessary entry in the register and record their address in India.

(2) Applications for books from members at outstations are dealt with as early as possible and books are sent post free by registered parcel post. They must be returned, carefully packed, by registered parcel post within two months of the date of issue, or immediately on recall.

(3) A member may not have on loan, at any one time, more than three books or sets of books without the Secretary's permission. Papers, magazines and works catalogued under the headings of "Works of Reference," "Not to be taken out" and "Confidential" may not be removed from the Institution.

(4) No particular limit is set on the number of days for which a member may keep a book, the Council wishing to make the library as useful as possible to members. This rule is, however, subject to the following limitations:

(*a*) If, after the expiration of three weeks from the date of issue, a book is wanted by another member, it will be recalled.

(*b*) A member wishing to retain a book for a period over *two* months from the date of issue must notify the Secretary to that effect, otherwise the book will be recalled.

(5) If a book is not returned within fourteen days of the date of recall, it must be paid for, if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost or defaced books that are out of print, the value shall be fixed by the Executive Committee and the member will be required to pay the cost so fixed.

(6) The catalogue of the library is available for sale at Rs. 2-8-0 per copy plus postage. A list of the books received during the preceding quarter is enclosed in loose leaf form suitable for pasting in the library catalogue.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

IV.—OLD BOOKS AND TROPHIES

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of books, trophies, medals, etc., presented to the Institution.

V.—PROMOTION EXAMINATIONS

(*a*) *Military History.*—(Reference I. A. O. 195 of 1938).

The following table shows the campaigns on which military history papers will be set for lieutenants for promotion to captain in sub-head *b* (*iii*), and for captains for promotion to major in sub-head *d* (*iii*), with a list of books recommended for the study of each. See King's Regulations, 1935, Appendix XI.—

1 Serial No.	2 Date of Examination.	3 Campaign set for first time.	4 Campaign set for second time.	5 Campaign set for last time.
1	March, 1939.	Egypt and Palestine, from the outbreak of the war with Germany to June, 1917.	The American Civil War from the beginning of 1864 to the end of the War.	..
2	October, 1939.	..	Egypt and Palestine, from the outbreak of the war with Germany to June, 1917.	The American Civil War from the beginning of 1864 to the end of the War.
3	March, 1940.	France and Belgium, 1914; up to and including the battle of the Aisne.	..	Egypt and Palestine, from the outbreak of the war with Germany to June, 1917.

The following books are recommended for the study of the campaigns—

Campaign.	Books.
The American Civil War, from the beginning of 1864 to the end of the War.	A History of the Civil War in the United States, 1861—5, by W. Birkbeck Wood, M.A., and Major J. E. Edmonds, R.E. (*Putman*).
	Sherman, by B. H. Liddell Hart (*Eyre and Spottiswoode*).
	Grant and Lee. A Study in Personality and Generalship, by Major-General J. F. C. Fuller, C.B., C.M.G., D.S.O. (*Eyre and Spottiswoode*).
Egypt and Palestine, from the outbreak of the war with Germany to June, 1917.	History of the Great War—Military Operations—Egypt and Palestine, Vol. I.
	The Palestine Campaigns, by Colonel A. P. Wavell, C.M.G., M.C. (*Constable*).
France and Belgium, 1914.	Official History of the Great War, Military Operations, France and Belgium, 1914, Vol. I, 1933 edition.

(*b*) In addition to the manuals mentioned in King's Regulations and Regulations for the Army in India, the following books are recommended:

Military Organization and Administration (Lindsell), 1937.

A. & Q. (Lindsell), 1933.

Imperial Military Geography (Cole), 1937.

Military Law (Banning), 1936.

VI.—STAFF COLLEGE EXAMINATION

Details of the syllabus for the entrance examination to the staff colleges are given in Staff College, Quetta, Regulations, 1930, obtainable from the Manager of Publications, Delhi or Calcutta. The following notes are intended as a guide to officers studying for the examination. Obligatory subjects consist of:

(1) *Strategy and Tactics*

(*a*) Strategy and Tactics Paper No. 1 deals with military history. A suitable bibliography is shown below. Books marked with an asterisk should be used as works of reference only. The student should try to extract from the various campaigns those lessons which are applicable to the present. He should consider whether the principles of war were violated and if so what were the consequences:

British Strategy (Maurice), 1929.

The British Way in Warfare (Liddell Hart), 1932.

Soldiers and Statesmen (Robertson), 1926.

History of the Great War (Cruttwell), 1936.

The War of Lost Opportunities (Hoffman), 1924.

The Palestine Campaign (Wavell), 1931.

A Brief Outline of the Campaign in Mesopotamia (Evans), 1926.

Tannenburg (Ironside).

Napoleon—an Outline (Balford).

*The Various Official Histories of the Great War.

*The World Crisis—abridged edition (Churchill), 1931.

*The Principles of War (Foch), 1918.

*German Strategy in the Great War (Neame).

*Outline History of the Russo-Japanese War, 1904, up to the Battle of Liao-Yang (Pakenham-Walsh), 1935.

*The Battle of Liao-Yang (Bird).

*Napoleon's Campaign in 1796 in Italy (Burton).

*Waziristan, 1919-20 (Watteville).

*The Third Afghan War (Official), 1926.

*The Dardanelles Campaign (Callwell).

*Wellington's Campaign (Robinson).

*Historical Illustrations to F. S. R. (Eady), 1926.

(*b*) *Strategy and Tactics Paper No.* 2.

This paper deals with warfare against a civilized and highly trained enemy. A knowledge of the technique of writing orders and appreciations is necessary.

In addition to the official manuals the following should be studied:

Notes on certain Lessons of the Great War.

Training Memoranda issued by the War Office and A.H.Q., India.

Reports on War Office and A.H.Q. Exercises.

Infantry Reorganization, 1936.

Examination Papers for admission to the Staff College.

(*c*) *Strategy and Tactics Paper No.* 3.

This paper deals with military evolution and the influence of modern inventions on warfare. The War Office Training Memoranda should be studied.

(*d*) *Strategy and Tactics Paper No.* 4.

This paper deals with warfare in an undeveloped country against an uncivilized or partly trained enemy. The following should be studied:

F. S. R. II, Chapter X.

Manual of Operations on the North-West Frontier.

Passing it On (Skeen).

(2) *Organization, Administration and Transportation*

British Army organization and establishments only are dealt with. In addition to the official manuals the following are useful:

Outline of the Development of the British Army up to 1914 (Hastings Anderson), 1931.

Military Organization and Administration (Lindsell), 1937.

A. & Q. (Lindsell), 1933.

(3) *History and Organization of the Empire*

The following should be studied:

Notes on the Land and Air Forces of British Oversea Dominions, Colonies and Protectorates (Official), 1934.

Imperial Military Geography (Cole), 1937.

In addition articles of interest are to be found regularly in *The Times, Round Table* and the *Journal of the Institute of International Affairs.*

VII.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

VIII.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor who founded the United Service Institution of India. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(*a*) For officers—British or Indian—silver medal.

(*b*) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief in India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ:

(*a*) Officers and other ranks of the Royal Navy, Army, Royal Air Force and of the Dominion Forces, while serving on the Indian establishment.

(*b*) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving.

Note.—The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.*

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

8. When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

IX.—GOLD MEDAL PRIZE ESSAY COMPETITION, 1939.

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1939:

The Secretary of State for War, introducing the Army Estimates for 1938-39, said:

"The rigidity of military policy in India has seriously hampered the necessary adaptation and modernization of our forces as a whole." Discuss this.

The following are the conditions of the competition:

(1) The competition is open to all gazetted officers of the Civil Administration in India and to all commissioned officers of His Majesty's Forces including Territorial Forces, wherever those forces have been raised and to officers of the Indian States Forces.

(2) Essays must be typewritten and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

(4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1939.

(6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published. The name of the successful candidate will be published in the October 1939 number of the Journal.

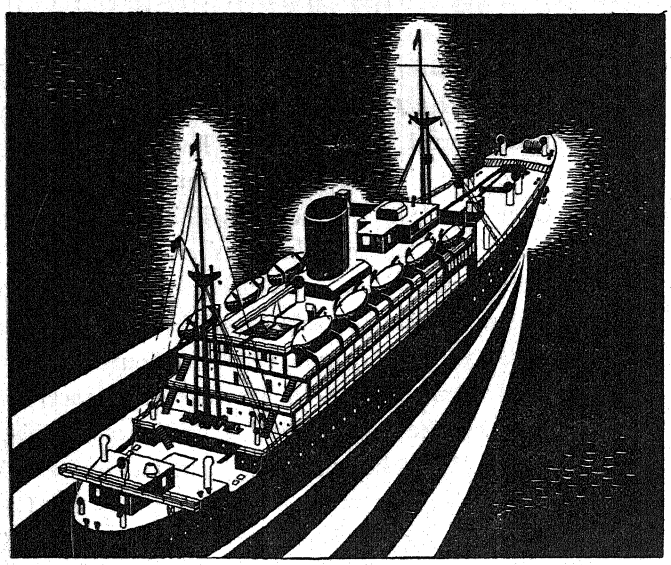
(7) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(8) Essays should not exceed fifteen pages of the size and style of the Journal exclusive of any appendices, tables or maps.

X.—*UNITED SERVICE INSTITUTE OF VICTORIA, VICTORIA BARRACKS, MELBOURNE, S.C.*1.

The above Institution would be happy to make available all facilities at Melbourne to members of the U. S. I. of India visiting Australia. Members wishing to avail themselves of this privilege should apply to the Secretary, United Service Institution of India, Simla, for letters of introduction.

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United Service Institution of India

APRIL, 1939

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I.—NEW MEMBERS

The following new members joined the Institution from 1st December 1938 to 28th February 1939:

Ordinary Members

Lieut.-Colonel C. D. M. Buckley, M.C., M.B.
Major F. D. S. Field, O.B.E., M.C.
„ J. F. C. Marshall.
„ N. P. Northam.
Captain F. R. Caley.
„ A. D. MacConachie.
„ P. G. B. McNalty.
Lieut. H. G. Conroy.
„ Daulet Singh.
„ H. G. Edwards.
„ G. H. Hodgson.
„ J. H. Hortin.
„ M. H. Hussain.
„ Khushal Pal Singh.
„ M. A. Latif.
„ J. D. Maling, M.C.
„ W. H. B. Oldham.
„ Randhir Singh.
2nd Lieut. Ali Akbar.
„ J. S. Cama.
„ Gurbux Singh.
„ Jagjit Singh.
„ Krishna Datt Vasudeva.
„ Mani Ram Gadav.
„ Mehaswan Sing Chinwan.
„ Mian Fazal Ali Khan.
„ K. D. Pande.
„ Suresh Chand Pandit.

II.—CONTRIBUTIONS TO THE JOURNAL

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten, with double spacing between lines, on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 25 to Rs. 150 according to the value of the contribution.

With reference to Regulations for the Army in India, paragraph 333, and King's Regulations, paragraph 535, the

Executive Committee of the Institution will take action, when necessary, to obtain the sanction of the Chief of the General Staff to the publication of an article in the Journal of the United Service Institution.

The Committee reserve to themselves the right to omit or amend any matter which they consider objectionable. Articles are only accepted on these conditions.

III.—READING ROOM AND LIBRARY

(1) The library is only open to members, who are requested to look on books as not transferable to their friends.

Books are only issued on loan to members who are resident in India. Members borrowing books from the library in person must make the necessary entry in the register and record their address in India.

(2) Applications for books from members at outstations are dealt with as early as possible and books are sent post free by registered parcel post. They must be returned, carefully packed, by registered parcel post within two months of the date of issue, or immediately on recall.

(3) A member may not have on loan, at any one time, more than three books or sets of books without the Secretary's permission. Papers, magazines and works catalogued under the headings of "Works of Reference," "Not to be taken out" and "Confidential" may not be removed from the Institution.

(4) No particular limit is set on the number of days for which a member may keep a book, the Council wishing to make the library as useful as possible to members. This rule is, however, subject to the following limitations:

(*a*) If, after the expiration of three weeks from the date of issue, a book is wanted by another member, it will be recalled.

(*b*) A member wishing to retain a book for a period over *two* months from the date of issue must notify the Secretary to that effect, otherwise the book will be recalled.

(5) If a book is not returned within fourteen days of the date of recall, it must be paid for, if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost or defaced books that are out of print, the value shall be fixed by the Executive Committee and the member will be required to pay the cost so fixed.

(6) The catalogue of the library is available for sale at Rs. 2-8-0 per copy plus postage. A list of the books received during the preceding quarter is enclosed in loose leaf form suitable for pasting in the library catalogue.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

IV.—OLD BOOKS AND TROPHIES

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of books, trophies, medals, etc., presented to the Institution.

V.—PROMOTION EXAMINATIONS

Details of the changed syllabus for promotion examinations were given in the Miscellaneous Service Notes in our last number, but are repeated here for convenience. Officers who have taken a portion of their examinations are recommended to study an Army Headquarters letter dated 6th January 1939 on the subject of changes in the military education of regimental officers copies of which have been distributed to all units.

After the 1st April the (*a*) and (*c*) examinations will take two days and will include questions on administration. But those officers who have passed their written examinations either in full or with the exception of Military History, now abolished, may take a one-day examination on the old syllabus before 1st July 1939.

The written examinations now consist of:

(1) *Lieutenants to Captain—*

(*b*) (*i*) Part I, Organisation and Administration of Troops in Barracks and the Field;

(*b*) (*i*) Part II, Military Law;

(*b*) (*ii*) Development and Constitution of the British Empire. Imperial Military Geography.

(2) *Captains to Major—*

Sub-heads (*d*) (*i*) Parts I and II and (*d*) (*ii*) are as for lieutenants but with certain additions;

(*d*) (*vi*) Training.

The (*c*) and (*d*) examinations will be done away with on the formation of the Tactical School at Belgaum, probably next year.

In addition to those given in King's Regulations, Appendix XI, the following books are recommended:

Military Organisation and Administration (Lindsell).

Military Law (Banning).

Imperial Military Geography (Cole).

A somewhat voluminous account of the constitution of the Empire will be found in:

The Dominions as Sovereign States (Keith).

The Governments of the British Empire (Keith).

The newspapers, and periodicals such as *The Round Table* should be read.

VI.—STAFF COLLEGE EXAMINATION

The syllabus for the examination to be held in February-March 1940, is to be changed. There will be no optional subjects and the syllabus for the three obligatory subjects is as follows:

(1) *Strategy and Tactics—*

The application of the principles of war to present conditions and those likely to obtain in the near future; the tactical employment of all arms in co-operation and the use and power of their weapons both in warfare against a highly trained enemy and against an uncivilised or partially uncivilised one; the training of all ranks in peace and war; military topography, military engineering and inter-communication affecting all arms; the drafting of orders and messages; the study of military history in accordance with the syllabus outlined below. Candidates will usually be left a choice as to the campaign from which they choose their examples to illustrate the principles of strategy and tactics, and such illustrations need not be confined to campaigns in the syllabus; but they may be called upon to give examples from one out of two or more specified campaigns in the syllabus.

Strategy of: The Peninsular Campaign. The American Civil War. The Great War in: France, Belgium, Mesopotamia, Dardanelles, Palestine, East Prussia (1914). Tactics of: France and Belgium up to the end of 1914. Palestine Campaign (from the date of General Allenby assuming command until the end of the War).

Generally, the subject will be dealt with in four papers each carrying a possible one thousand marks for which the qualifying minimum will be three hundred marks in each paper with a total of two thousand marks for the whole four papers.

(*a*) Military history and the principles of war.

A suitable bibliography is shown below.* Books marked with an asterisk should be used as works of reference only. The student should try to extract from the various campaigns those lessons which are applicable to the present. He should consider whether the principles of war were violated and if so what were the consequences:

British Strategy (Maurice).

Military History for the Staff College Entrance Examination (Sheppard).

*The Principles of War (Foch).

*Historical Illustrations to Field Service Regulations (Eady).

Wellington's Campaigns, Volumes I and II (Robinson).

Oxford History of the U.S.A., Volume II.

Governments and War (Maurice).

*The Various Official Histories of the Great War.

*The World Crisis (Churchill). (There is an abridged edition).

History of the Great War (Crutwell).

The War of Lost Opportunities (Hoffman).

Liaison, 1914 (Spears).

A Brief Outline of the Campaign in Mesopotamia (Evans).

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*A list of books recommended by the War Office for the study of the campaigns has been received too late for inclusion. It is understood that it has been distributed down to units. Most of the books listed are in the library.

The Dardanelles Campaign (Callwell).

The Palestine Campaign (Wavell).

Tannenburg (Ironside).

German Strategy in the Great War (Neame).

(*b*) Solution, from a map, of tactical problems dealing with a civilised and highly trained enemy. Questions on the training of the Army in peace.

In addition to the ordinary official manuals the following should be studied:

Notes on Certain Lessons of the Great War.

Training Memoranda issued by the War Office and A. H. Q., India.

Reports on War Office and A. H. Q. Exercises.

M. T. Training Pamphlets.

Examination papers for admission to the Staff College.

(*c*) Military evolution and the influence of modern inventions on warfare.

The War Office Training Memoranda should be studied.

(*d*) Tactical and administrative problems dealing with warfare in undeveloped countries against an uncivilised and partly trained enemy.

The following should be studied:

F. S. R., II, Chapter X.

Manual of Operations on the North-West Frontier.

Passing it On (Skeen).

(2) *Organisation, Administration and Transportation.*

The history and evolution of British military organisation from December 1868, to the present day. The application of the principles of military organisation, administration and transportation to the problems of the maintenance and movement of the military forces of the Empire in peace, and the application of these principles as contained in F. S. R. and the Manual of movement (War) to problems in war.

The subject will be dealt with in two papers, each carrying one thousand marks with a qualifying minimum of three hundred marks for each paper and one thousand marks in the whole subject.

The first paper will deal with problems as they affect the military forces of the Empire in peace and the second as they affect these forces in war.

In addition to the official manuals the following are useful:

Outline of the Development of the British Army up to 1914 (Hastings Anderson), 1931.

Military Organisation and Administration (Lindsell), 1938.

A. and Q. (Lindsell), 1933.

(3) *The History and Organisation of the Empire.*

A study of the Empire, including its history, various systems of government and its armed forces; its geography, communications and frontiers; and the influence of foreign states on British strategy.

The following should be studied:

Imperial Military Geography (Cole), 1937;

and, if time permits, The Governments of the British Empire (Keith).

In additon, articles of interest are to be found regularly in *The Times, Round Table* and the *Journal of the Institute of International Affairs.*

The Army Headquarters Staff College course will be held in Simla from the 10th July to the 5th August. Numbers attending the course will be limited to fifty, but additional courses will be held later in Northern and Southern Commands if the number of candidates makes it necessary.

VII.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

VIII.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor who founded the United Service Institution of India. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(*a*) For officers—British or Indian—silver medal.

(*b*) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief in India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ:

(*a*) Officers and other ranks of the Royal Navy, Army, Royal Air Force and of the Dominion Forces, while serving on the Indian establishment.

(*b*) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving.

Note.—The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.*

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

8. When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

*Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

IX.—GOLD MEDAL PRIZE ESSAY COMPETITION, 1939.

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1939:

The Secretary of State for War, introducing the Army Estimates for 1938-39, said:

"The rigidity of military policy in India has seriously hampered the necessary adaptation and modernization of our forces as a whole." Discuss this.

The following are the conditions of the competition:

(1) The competition is open to all gazetted officers of the Civil Administration in India and to all commissioned officers of His Majesty's Forces including Territorial Forces, wherever those forces have been raised and to officers of the Indian States Forces.

(2) Essays must be typewritten and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1939.

(6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published. The name of the successful candidate will be published in the October 1939 number of the Journal.

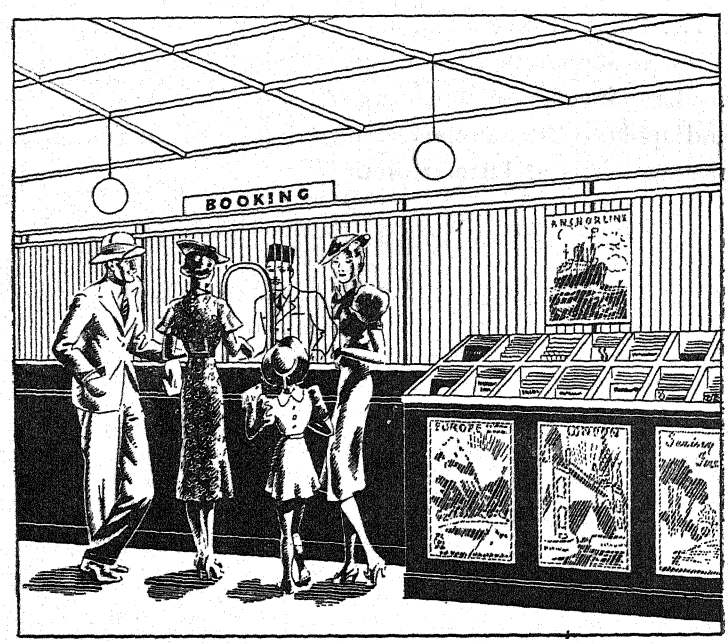
(7) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(8) Essays should not exceed fifteen pages of the size and style of the Journal exclusive of any appendices, tables or maps.

X.—UNITED SERVICE INSTITUTE OF VICTORIA, VICTORIA BARRACKS, MELBOURNE, S.C.1.

The above Institution would be happy to make available all facilities at Melbourne to members of the U. S. I. of India visiting Australia. Members wishing to avail themselves of this privilege should apply to the Secretary, United Service Institution of India, Simla, for letters of introduction.

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United Service Institution of India

JULY, 1939

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I.—NEW MEMBERS

The following new members joined the Institution from 1st March 1939 to 31st May 1939:

Life Member

Lieut. Pritam Singh.

Ordinary Members

Sir James S. Pitkeathly, C.M.G., C.I.E., C.V.O., C.B.E., D.S.O.
Air Marshal Sir P. B. Joubert de la Ferte, K.C.B., C.M.G., D.S.O.
Lieut.-General Sir C. Clement Armitage, K.C.B., C.M.G., D.S.O.
Major-General F. P. Nosworthy, C.B., D.S.O., M.C.
„ G. G. Tabuteau, D.S.O., D.M.S.
Brigadier W. H. Happell.
Lieut.-Colonel K. N. Crawford, M.C., R.E.
„ L. E. MacGregor, O.B.E.
„ E. W. Pert, M.C., R.E.
„ T. O. Thompson, D.M., R.A.M.C.
„ F. I. S. Tuker, O.B.E.
Major J. H. C. Currie, D.C.L.I.
„ C. J. Dalton, R.A.
„ R. N. F. Marks.
„ R. H. Perry, M.C., R.E.
Captain C. F. W. Miller, R.E.
Engineer Captain J. E. Moloney, R.I.N.
Captain T. A. G. Pritchard.
„ P. G. N. Tindal-Carill-Worsley.
Flying Officer G. A. L. Cheatle.
Lieut. C. A. Godfrey.
„ A. B. Riall.
2nd Lieut. Ali Akhtar.*
„ Bhai Fateh Jang Singh, M.L.A.
„ Mathura Singh.
Mr. Alexander Inglis.

II.—CONTRIBUTIONS TO THE JOURNAL

Preference is given to articles dealing with naval, military or air force matters likely to be of topical interest to the majority of readers of the journal. Historical articles should point a moral. A limited number of articles on travel, sport, or general topics may be accepted.

* Substituted for 2nd Lieut. Ali Akbar incorrectly published in list of members in the April Journal.

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten, with double spacing between lines, on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 25 to Rs. 150 according to the value of the contribution.

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(6) The re-cataloguing of the library has been begun and it is hoped to issue a new catalogue during the course of the next year. The existing catalogue is available at half price—Rs. 1-4-0 per copy plus postage.

(7) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

IV.—OLD BOOKS AND TROPHIES

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of books, trophies, medals, etc., presented to the Institution.

V.—PROMOTION EXAMINATIONS

Details of the syllabus for promotion examinations will be found in our last number.

The library contains suitable books for study.

VI.—STAFF COLLEGE EXAMINATION

Details of the syllabus for the examination to be held in February-March 1940 will be found in the April number of the journal together with lists of books recommended for study.

The following is a list recommended by the War Office. These books are either in the library or are being obtained:

PENINSULAR CAMPAIGN

(*a*) *General*—

"Wellington," by Sir John Fortescue.

"Wellington's Army," by Professor Oman.

"Decisive Wars of History," by Captain Liddell Hart (pages 104 to 116).

(*b*) *Further detail* may be found in—

"History of the British Army," Volumes 7 and 8, by Sir John Fortescue.

"History of the Peninsular War," by Professor Oman.

(*c*) *Human side*—

"Adventurers in the Rifle Brigade," by Kincaid.

"Battles in the Peninsula," by Napier.

"Death to the French," a novel by C. S. Forrester.

AMERICAN CIVIL WAR

(*a*) *General*—

"History of the Civil War in the United States," by Wood and Edmond.

(*b*) *Biographies*—

"Stonewall Jackson," by Colonel Henderson.

"Sherman," by Captain Liddell Hart.

"Lee," by General Maurice.

"Forrest," by Lyttle.

(*c*) *Human side*—

"John Brown's Body"—poetry, but well worth reading for the human background of the war.

"Swords and Roses"—a novel by Hergesheimer.

"Gone with the Wind"—a novel by M. Mitchell.

THE GREAT WAR

(*a*) *General*—

"British Strategy in the Great War," by Cruttwell.

"History of the Great War, 1914—1919," by Cruttwell. This is a very well-written general account, though there are a number of minor inaccuracies.

"World Crisis" (abridged edition), by Winston Churchill.

"Soldiers and Statesmen," by Field-Marshal Sir William Robertson.

"The War in Outline," by Captain Liddell Hart.

(*b*) 1914 *in France and Belgium*—

The Official History, Vol. I, new edition.

"Liaison," by Brigadier-General Spears.

"The Campaign of the Marne," by Sewell Tyng.

"Advance from Mons" by Bloem, deals with the human side.

(*c*) *Mesopotamia*—

The Official History.

(*d*) *Dardanelles*—

The Official History.

(*e*) *Palestine*—

The Official History. Volume II deals with the period for which study of the tactics is laid down.

"Palestine Campaigns," by Lieut.-General Wavell.

"London Men in Palestine," by Caldecott; deals with the human point of view.

(*f*) *East Prussia*, 1914

"Tannenburg," by General Ironside.

"The Truth about Tannenburg," by General von Hoffman.

GENERALLY

(*a*) For all the above Campaigns the Articles in the *Encyclopædia Britannica* are usually good.

(*b*) *General Strategy*—

Article "Strategy," in the *Encyclopædia Britannica*.

"British Strategy," by General Maurice.

"The Science of War," by Colonel Henderson (Chapters I and II).

"The Army and Sea Power," by Pargiter and Eady.

"Wellington," by Cruttwell.

VII.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

VIII.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor who founded the United Service Institution of India. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(*a*) For officers—British or Indian—silver medal.

(*b*) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief in India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ:

(*a*) Officers and other ranks of the Royal Navy, Army, Royal Air Force and of the Dominion Forces, while serving on the Indian establishment.

(*b*) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving.

Note.—The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.*

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

8. When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

IX.—GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1940:

"Discuss the value of mechanisation in assisting to solve the defence problems in India."

The following are the conditions of the competition:

(1) The competition is open to all gazetted officers of the Civil Administration in India and to all commissioned officers of His Majesty's Forces including Territorial Forces, wherever those forces have been raised and to officers of the Indian States Forces.

(2) Essays must be typewritten and submitted in triplicate.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1940.

* Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

(6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published. The name of the successful candidate will be published in the October 1940 number of the Journal.

(7) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(8) Essays should not exceed fifteen pages of the size and style of the Journal exclusive of any appendices, tables or maps.

X.—UNITED SERVICE INSTITUTE OF VICTORIA, VICTORIA BARRACKS, MELBOURNE, S.C.1.

The above Institution would be happy to make available all facilities at Melbourne to members of the U. S. I. of India visiting Australia. Members wishing to avail themselves of this privilege should apply to the Secretary, United Service Institution of India, Simla, for letters of introduction.

XI.—PROGRAMME OF LECTURES TO BE DELIVERED IN THE GAIETY THEATRE, SIMLA.

The following lectures will be delivered in the Gaiety Theatre, Simla, at 5-30 p.m. on the undermentioned dates:

Date	Subject	Lecturer
Thursday, 6th July ..	How a Journalist Gets his News.	Jessleyn Hennessy, Esq.
Thursday, 13th July ..	N. W. F. P. Policies.	Major W. E. Maxwell, C.I.E.
Thursday, 20th July ..	Economic and Financial Aspects of Defence and of Re-armament.	Dr. T. E. Gregory, D.Sc.
Thursday, 27th July ..	Modernisation of the Land Forces in India.	Brigadier E. E. Dorman-Smith, M.C.

NOTE.—Tickets for admission to these lectures will be issued to Members of the U. S. I. only.

Except for the lecture on Thursday, 27th July, each ticket will admit the member and two ladies.

Tickets should be shown at the door of the theatre.

Tickets will be sent to all members of the U. S. I. resident in Simla.

Members in other stations who wish to attend any of the lectures are requested to inform the Secretary who will send them tickets.

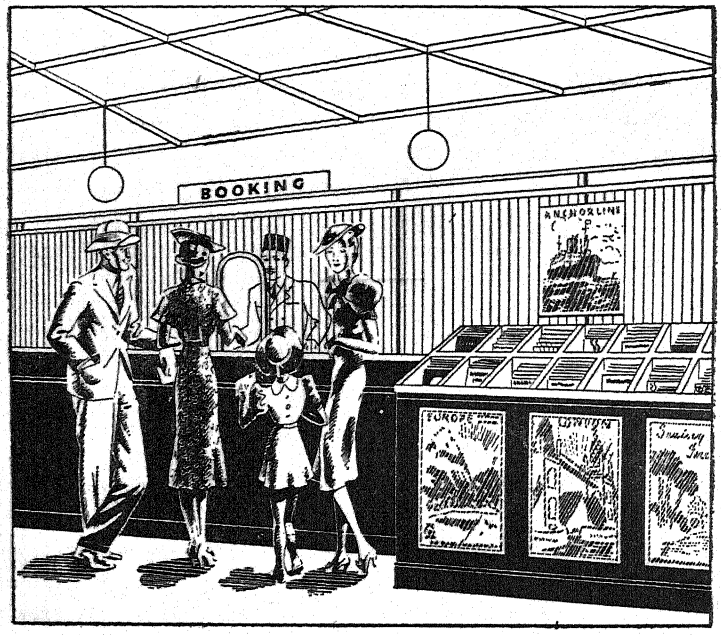
XII.—A.H.Q. STAFF COLLEGE COURSE SERIES, 1939.

Sets of papers of the above mentioned series, complete with maps, are available for sale at Rs. 12 per set.

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(*ii*) Strategy and Tactics papers, including 5 maps ... ,, 7

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United Service Institution of India

OCTOBER, 1939

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I.—NEW MEMBERS

The following new members joined the Institution from 1st June to 31st August 1939:

M. F. Cleary, Esq., I.P.

E. T. Coates, Esq., C.I.E., I.C.S.

Dr. T. E. Gregory, D.SC.

N. R. Pillai, Esq., C.I.E., C.B., I.C.S.

T. S. Pillay, Esq., M.A., B.L.

Brigadier E. E. Dorman-Smith, M.C.

„ Ghansar Singh.

Colonel Russell Jones, O.B.E., A.E.C.

Lieut.-Colonel H. H. Elliott, M.B.E., M.C., M.B., F.R.C.S., I.M.S.

„ M. A. Rahman, I.M.S. (retd.), M.L.A. (Central).

Major H. V. S. Muller, R.I.A.S.C.

Captain G. H. Carr.

„ P. E. R. Dawson.

„ C. T. Edward-Collins.

„ Gurdip Singh.

„ H. R. Jones.

„ A. W. Mills.

„ Mohammad Azam Khan.

„ Mohindar Singh Chopra.

„ D. R. Morgan.

„ A. G. Munn, M.C.

„ The O'Grady.

„ V. W. Tregear.

„ E. B. C. Wall.

„ A. H. Yeatman-Biggs.

Lieut. S. M. Afzal.

„ W. Broke-Smith, R.A.

„ D. G. T. Horsford.

II.—CONTRIBUTIONS TO THE JOURNAL

Preference is given to articles dealing with naval, military or air force matters likely to be of topical interest to the majority of readers of the journal. Historical articles should point a moral. A limited number of articles on travel, sport, or general topics may be accepted.

Articles may vary in length from two thousand to ten thousand words. They should be submitted in duplicate and typewritten, with double spacing between lines, on one side of the paper. Manuscript articles cannot be considered. Payment is made on publication at from Rs. 25 to Rs. 150 according to the value of the contribution.

With reference to Regulations for the Army in India, paragraph 333, and King's Regulations, paragraph 535, the Executive Committee of the Institution will take action, when necessary, to obtain the sanction of the Chief of the General Staff to the publication of an article in the Journal of the United Service Institution.

The Committee reserve to themselves the right to omit or amend any matter which they consider objectionable. Articles are only accepted on these conditions.

III.—READING ROOM AND LIBRARY

(1) The library is only open to members, who are requested to look on books as not transferable to their friends.

Books are only issued on loan to members who are resident in India. Members borrowing books from the library in person must make the necessary entry in the register and record their address in India.

(2) Applications for books from members at outstations are dealt with as early as possible and books are sent post free by registered parcel post. They must be returned, carefully packed, by registered parcel post within two months of the date of issue, or immediately on recall.

(3) A member may not have on loan, at any one time, more than three books or sets of books without the Secretary's permission. Papers, magazines and works catalogued under the headings of "Works of Reference," "Not to be taken out" and "Confidential" may not be removed from the Institution.

(4) No particular limit is set on the number of days for which a member may keep a book, the Council wishing to make the library as useful as possible to members. This rule is, however, subject to the following limitations:

(*a*) If, after the expiration of three weeks from the date of issue, a book is wanted by another member, it will be recalled.

(*b*) A member wishing to retain a book for a period over *two* months from the date of issue must notify the Secretary to that effect, otherwise the book will be recalled.

(5) If a book is not returned within fourteen days of the date of recall, it must be paid for, if so required by the Executive Committee. Lost and defaced books shall be replaced at the cost of the member to whom they were issued. In the case of lost or defaced books that are out of print, the value shall be fixed by the Executive Committee and the member will be required to pay the cost so fixed.

(6) The issue of a book under these rules to any member implies the latter's compliance with the rules and the willingness to have them enforced, if necessary, against him.

(7) The re-cataloguing of the library has been begun and it is hoped to issue a new catalogue during the course of the next year. The existing catalogue is available at half price—Rs. 1-4-0 per copy plus postage.

IV.—OLD BOOKS AND TROPHIES

The Institution is in possession of a collection of old and rare books presented by members from time to time and, while such books are not available for circulation, they can be seen by members visiting Simla.

The Secretary will be glad to acknowledge the gift of books, trophies, medals, etc., presented to the Institution.

V.—HISTORICAL RESEARCH

The U. S. I. is prepared to supply members and units with typewritten copies of old Indian Army List pages, at the rate of Rs. 2 per typewritten page.

VI.—THE MacGREGOR MEMORIAL MEDAL

1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor who founded the United Service Institution of India. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of June:

(*a*) For officers—British or Indian—silver medal.

(*b*) For soldiers—British or Indian—silver medal with Rs. 100 gratuity.

3. For especially valuable work, a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the Fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for especially good work.

4. The award of medals is made by His Excellency the Commander-in-Chief in India, as Vice-Patron, and the Council of the United Service Institution of India, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. The following are eligible for the award, whether at the time of the reconnaissance they were in military or civil employ:

(*a*) Officers and other ranks of the Royal Navy, Army, Royal Air Force and of the Dominion Forces, while serving on the Indian establishment.

(*b*) Officers and other ranks of the Royal Indian Navy, Indian Army, Indian Air Force and of the Indian States Forces, wherever serving.

Note.—The term "Indian Army" includes the Indian Auxiliary and Territorial Forces, Frontier Militia, Levies, Military Police and Military Corps under local governments.

6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.*

7. Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but, in the event of two journeys being of equal value, the man who has incurred the greater risk will be considered to have the greater claim to the award.

8. When the work of the year has either not been of sufficient value or notice of it has been received too late for consideration before the Council Meeting, the medal may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief in India to deserve it.

9. The medal of 1938 has been awarded to:

Major A. S. Lancaster, 10th Gurkha Rifles.

VII.—GOLD MEDAL PRIZE ESSAY COMPETITION

The Council has chosen the following subject for the Gold Medal Prize Essay Competition for 1940:

"Discuss the value of mechanisation in assisting to solve the defence problems in India."

The following are the conditions of the competition:

(1) The competition is open to all gazetted officers of the Civil Administration in India and to all commissioned officers of His Majesty's Forces including Territorial Forces, wherever those forces have been raised and to officers of the Indian States Forces.

(2) Essays must be typewritten and submitted in triplicate.

*Replacements of the ribbon may be obtained on payment from the Secretary, U.S.I., Simla.

(3) When reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be strictly anonymous. Each must have a motto, and, enclosed with the essay, there should be sent a sealed envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by the Secretary on or before the 30th June 1940.

(6) Essays will be submitted for adjudication to three judges chosen by the Council. The judges may recommend a money award, not exceeding Rs. 500, either in addition to, or in substitution for, the medal. The decision of the three judges will be submitted to the Council, who will decide whether the medal is to be awarded and whether the essay is to be published. The name of the successful candidate will be published in the October 1940 number of the Journal.

(7) All essays submitted are to become the property of the United Service Institution of India absolutely, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(8) Essays should not exceed fifteen pages of the size and style of the Journal exclusive of any appendices, tables or maps.

(9) Four essays were received for 1939. The first three were placed in order of merit as follows:

(1) "Festina Lente," Major J. H. Walley-Kelley, the South Lancashire Regiment.

(2) "Look not behind, but at the hill top against the great sky ahead," Brevet Lt.-Col. T. Scott, 6th D.C.O. Lancers, and

(3) "Mutatis Mutandis," Major C. McI. Delf, I.A.O.C.

The medal was not awarded but monetary grants to the authors were approved.

VIII.—UNITED SERVICE INSTITUTE OF VICTORIA, VICTORIA BARRACKS, MELBOURNE, S.C.1.

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Australia. Members wishing to avail themselves of this privilege should apply to the Secretary, United Service Institution of India, Simla, for letters of introduction.

IX.—A.H.Q. STAFF COLLEGE COURSE SERIES, 1939.

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